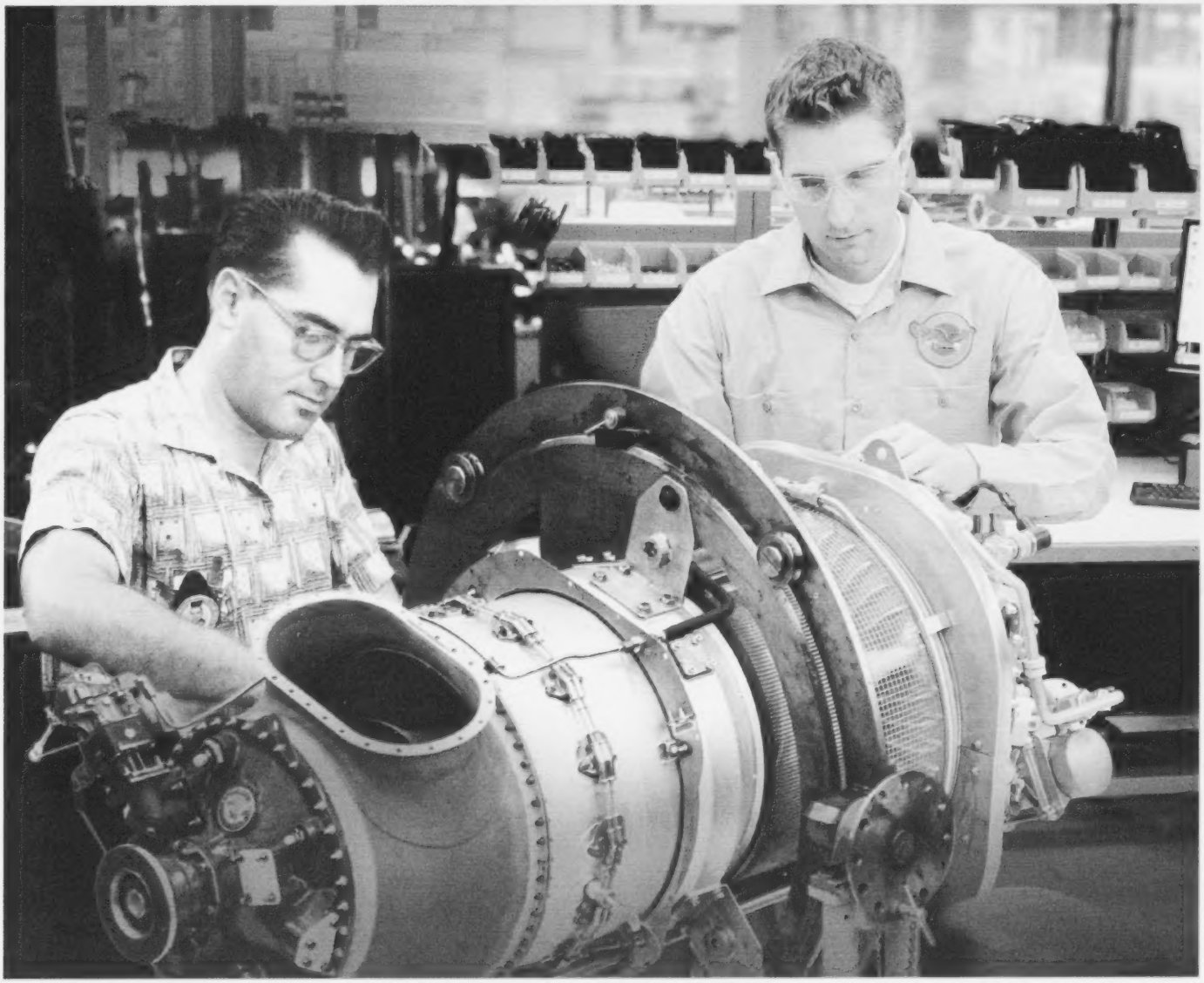
Transport Canada Transports Canada

TP 6980E
(4/2013)

Issue 4/2013

# Feedback

## Canadian Aviation Service Difficulty Reports



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Canada

TC-1005289

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## 50th Anniversary of the Pratt & Whitney Canada PT6 Turbine Engine

The cover picture for this Feedback issue was chosen to celebrate the 50th anniversary of the Pratt & Whitney Canada PT6 engine. The PT6 is an iconic engine that set the benchmark for reliability.

An astounding 52 300 PT6 engines have been produced of which more than 27 000 are still operating. At last count, there were 90 different models operating in 140 different platforms. The engines have accumulated over 390 million flying hours through an abundance of 7180 operators and there are no signs that this is slowing down. One of the amazing things about this engine is the enduring quality of its simple and reliable design. Even after 50 years since entry into service, new models are still being developed. There is no doubt that many more significant anniversaries of this engine will be celebrated in the future.


*Feedback* is published quarterly by the Continuing Airworthiness Division of Transport Canada, informing the aviation community of reported day-to-day problems that affect aircraft airworthiness in Canada.



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To view *Feedback* online or to receive it electronically please visit:
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The articles contained in *Feedback* are derived from *Service Difficulty Reports* (SDRs) submitted by Aircraft Maintenance Engineers (AMEs), owners, operators and other sources in accordance with *Canadian Aviation Regulation* (CAR) 521.

SDRs are normally published verbatim. Transport Canada assumes no responsibility for the accuracy or content of any of these reports. Only spelling errors are corrected and content may be reduced as well as personal references deleted.

All defects or occurrences should be reported to Transport Canada through the Service Difficulty Reporting Program. For additional information about this program or concerning an article in *Feedback* magazine, contact your nearest Transport Canada Centre.

For all technical inquires related to articles of this magazine, please address your correspondence to *CAWWebFeedback@tc.gc.ca*

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# Heads Up

Boeing, 737-8Q8 SDR # 20130123003

## Cold Weather Operations

While the aeroplane was climbing through 35 000 feet, the crew found the pressurization to be fluctuating and the outflow valve to be unresponsive. During a descent to see if the issue would be resolved, the outflow valve went to full open and the aeroplane rapidly depressurized. The crew initiated a rapid decent and oxygen was deployed for the crew and passengers. The aeroplane returned to its origin and landed without any further issues where there were no reported injuries to crew or passengers.

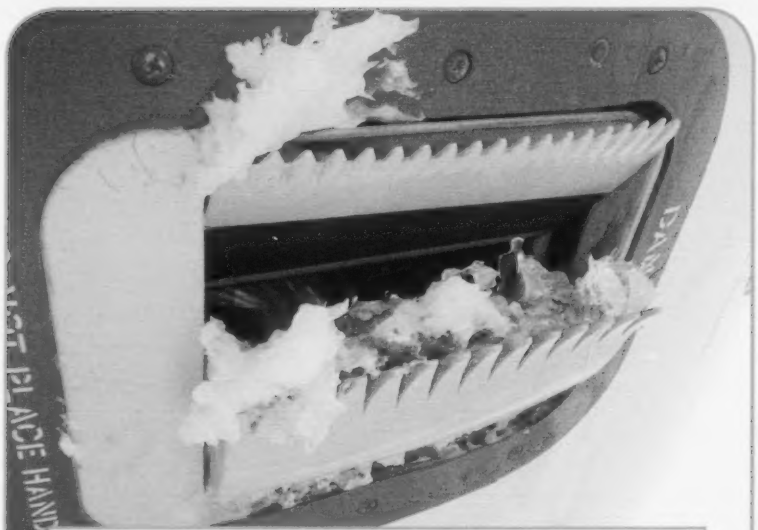
After arrival, maintenance inspected the aeroplane and immediately found a substantial amount of ice around and in the outflow valve. This ice would have restricted the movement and control of the valve. Including the outflow valve, additional ice was found around the drains and tail skid. Further inspection revealed that a potable water 4-way coupling had released in the aft section of the aeroplane causing water to be sprayed directly onto the outflow valve from the inside of the aeroplane, as seen in the attached figure.

The water coupling was re-secured for correct installation and all ice accumulations and obstructions were removed, making the aeroplane serviceable.

*Transport Canada Comments:*

*As stated by the operator, the reason for the 4-way coupling failure was due to a frozen water line where upon review of this event, it was discovered that Boeing had published fleet team article 737NG-FTD-38-07001.*

*To summarize this article, Boeing has determined that operator diligence towards ground handling in cold weather operations in reference to Aircraft Maintenance Manual (AMM) 12-33-01/02 is essential to prevent such events. Also stated is that Boeing Service Bulletin 737-38-1057 is available for the addition of shroud/drains and heaters for the 4-way coupling along with the replacement of various solid tubing with either flexible non-heated or heated hoses.*



Ice accumulation in the outflow valve of a Boeing 737

Airbus A310-304 SDR # 20120827017

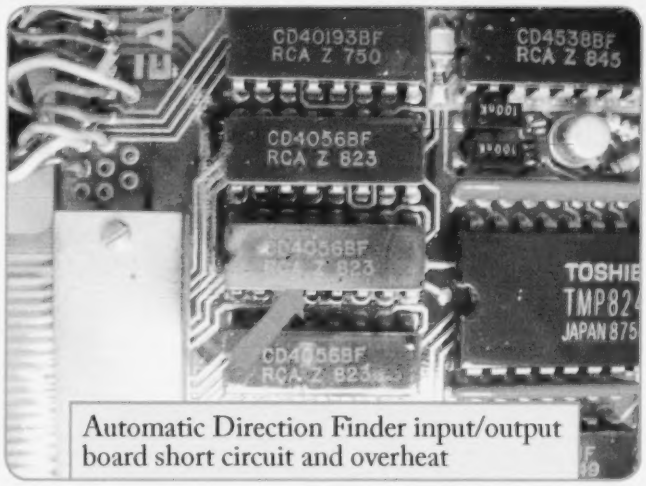
## Overheated Automatic Direction Finder Control Panel

**SDR submitted:**

During cruise, the flight crew reported smoke coming out of the Automatic Direction Finder (ADF) #2 control panel. The ADF #2 circuit-breaker was pulled but smoke continued to come out of panel. The panel was removed and disconnected and the smoke discontinued.

The ADF panel was sent to an approved repair shop for investigation.

A new serviceable ADF panel was installed, making the aeroplane serviceable.



Automatic Direction Finder input/output board short circuit and overheat

*Transport Canada Comments:*

*An in-depth investigation was performed by an approved overhaul facility where the following conclusion was stated:*

*"The root cause has not been established, but it may be a short circuit between the ground and +28V DC transfer light signals localized:*

- *at green indicator lights DS3 or DS4 (potentially caused by water intrusion)*

  *or*

- *on the I/O board between the ground and +28V DC transfer light tracks near the connector P1 (potentially caused by a foreign object, debris or pollution)."*

*It is important to note that for both scenarios of this conclusion, potential foreign object damage (FOD) was stated.*

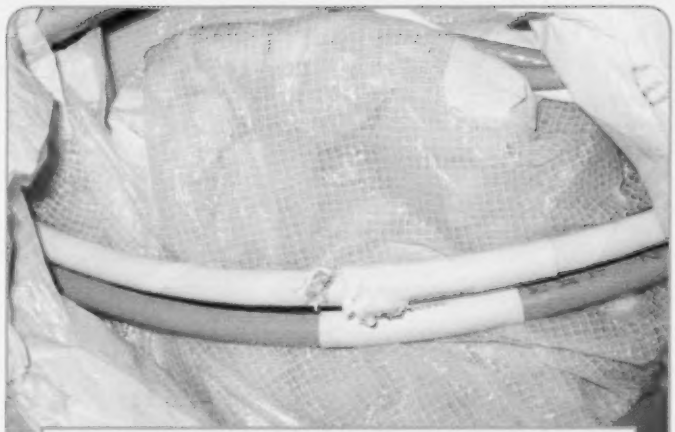
*As maintainers of unpressurized piston powered aeroplanes to large turbine commercial jets, the cleanliness of our aeroplanes in being free of potential damaging debris or FOD is critical for its safe continued operation.*

## Alternating Current (AC) Power Feeder Cable

**SDR submitted:**

Shortly before entering operational service, a foreign interior completion center had installed the finished interior in the baggage bay. At this time, an upper intercostal was added to support the ceiling headline paneling. It was later found that the screws & bolts used to install the intercostal were excessively long and were chafing into the generator #1 power feeder cable. The feeder cable is installed above the headliner paneling and in an inaccessible area that the installer could not see while installing these improper screws.

Soon thereafter, it was discovered that the screws had damaged the insulation layers of the feeder cable and possibly the conductor of the feeder wires. The document holder will soon be issuing an engineering order to carry out a repair.



Chafing damage to the alternating current electrical power cable due to excessively long screws

*Transport Canada Comments:*

*The above defect was entirely preventable and had the potential to have caused significant problems during flight.*

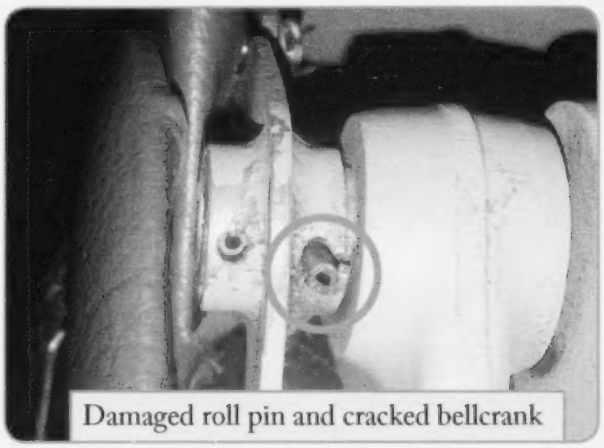
*Personnel should be fully aware of the areas that they work in, particularly when drilling into hidden compartments. It is essential that the proper hardware/screws be installed.*



## Cracked Pilot Seat Bellcrank

**SDR submitted:**

The bellcranks were found cracked where they connect to the "crank-weld assembly" on both the left and right hand side. The pins that secure the bellcrank on the left hand side had partially sheared placing the load on 2 of the 4 holes and appeared to cause the cracks to spread open. Damage to the right hand bellcrank was less severe and the pins were intact. Complete failure of the bellcranks or securing pins would cause the seat backrest to fully recline without warning.



Damaged roll pin and cracked bellcrank

*Transport Canada Comments:*

*Seats are sometimes overlooked or not inspected as thoroughly as other items on an aeroplane. We must remember that they are an airworthiness item just as important as any other installed component. Should a seat back or locking device fail during a critical phase of flight such as during rotation, disastrous consequences could result.*

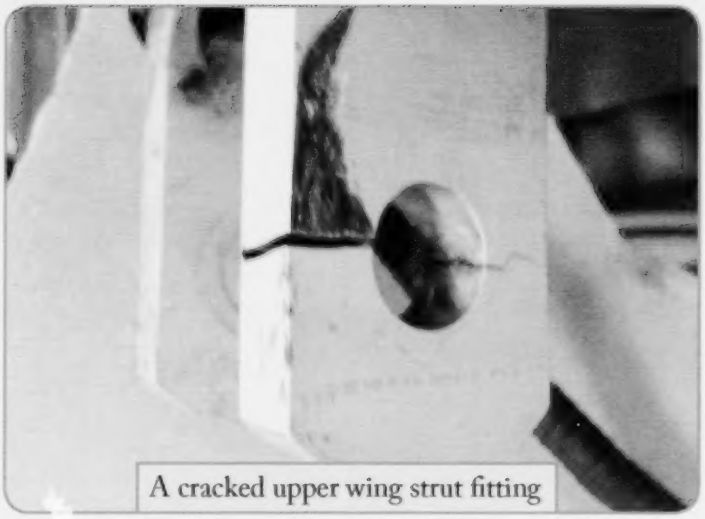
Cessna 208 SDR # 20120626016

## Upper Wing Strut Fitting – Crack

**SDR submitted:**

While completing a scheduled inspection in the wing area, a significant crack was found at the aft portion of the upper wing strut fitting. Further inspection revealed that the crack located on the fitting ear left only 6.35 mm (¼ inch) of material remaining.

The eddy current inspection interval for the upper wing strut is set at 10 000 hours. In this case, the next inspection was still some 4333 hours away.



A cracked upper wing strut fitting

*Transport Canada Comments:*

*Cessna examined the failed right hand aft upper wing strut fitting part number (P/N) 2621008-202 and determined the mode of failure as high cycle fatigue.*

*Fortunately, Cessna 208 wings are externally braced by struts that are redundant (double shafts and double fittings). This extra margin of ruggedness built into the type design ensured a margin of safety.*

*Cessna are planning corrective action and will conduct additional cyclic testing on the wing struts to verify that the current inspection in Chapter 4 of the Model 208 Maintenance Manual (MM) is adequate. It is also Cessna's position that any aeroplane operated on floats should be following the "Severe Inspection Time Limits" and not the "Typical Inspection Time Limits". The Cessna MM will be revised accordingly.*

Douglas DC-10-30F SDR # 20130405007

## Main Wheel Rim Crack

**SDR submitted:**

A 1.8 cm (0.700 inch) long crack was found on the out-board wheel half during a routine shop overhaul procedure. The method used to detect the crack was a high frequency eddy current (HFEC) inspection. The crack originated on the mating surface between the spoke and bolt hole.

A half cracked wheel rim

*Transport Canada Comments:*

*The crack was detected using the HFEC method, Transport Canada Civil Aviation emphasizes the importance of close visual inspections during all daily and service check walkaround's for all gear related equipment.*

## Wing Slat Anti-Ice Hose Delamination

**SDR submitted:**

During cruise flight, the crew noticed that the left wing inboard leading edge slat was not shedding ice with the anti-ice selected. Upon maintenance investigation, the anti-ice flex hose for the left inboard slat was removed and found to be delaminated in several areas of the inner lining.

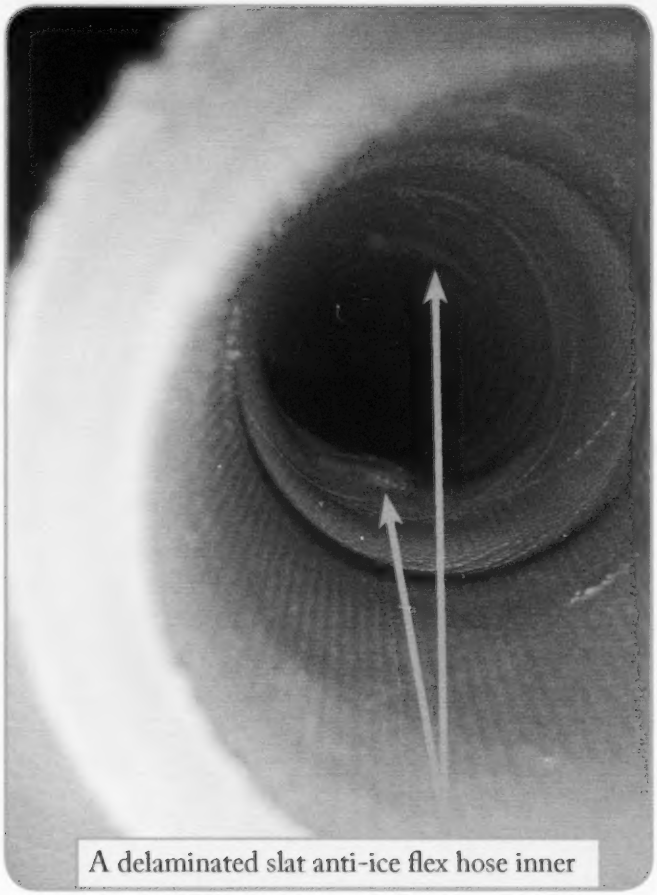
The hose was replaced and the aeroplane was made serviceable.

*Transport Canada Comments:*

*As explained by the operator, the remaining 3 other slat flex hoses were inspected where 2 more hoses with mild delamination of the inner lining were found.*

*All four slat anti-icing hoses were sent to Dassault (Falcon) Continuing Airworthiness Engineering. Through their investigative efforts, it was concluded that from the possible torsion imposed on the hose during installation, heat-buildup and delamination can occur. Due to this possibility, all affected Aircraft Maintenance Manual installation procedures were revised.*

*Also, it was decided to de-escalate or drop the hard-time airworthiness limitation from 700 hours to 400 hours for this anti-ice hose.*



A delaminated slat anti-ice flex hose inner

## Elevator De-Icing Boot Failure

**SDR submitted:**

The left-hand elevator horn failed in flight ("amber fail" on push-button annunciator panel).

Upon removal of the faulty left hand elevator horn assembly, maintenance noticed that the de-icing boot itself was deformed due to excessive heat. An elongated hole was also noticed on the de-icing boot and it is suspected that this is where an electrical short occurred, causing the overheat condition.

The fiberglass fairing was burned through and required replacement including the installation of a new de-icing boot.

*Transport Canada Comments:*

*The thorough maintenance investigation captured exactly what the amber fail light indicated.*

Elevator horn de-icing boot overheated and deformed



## Bleed Air T-Duct Failure

**SDR submitted:**

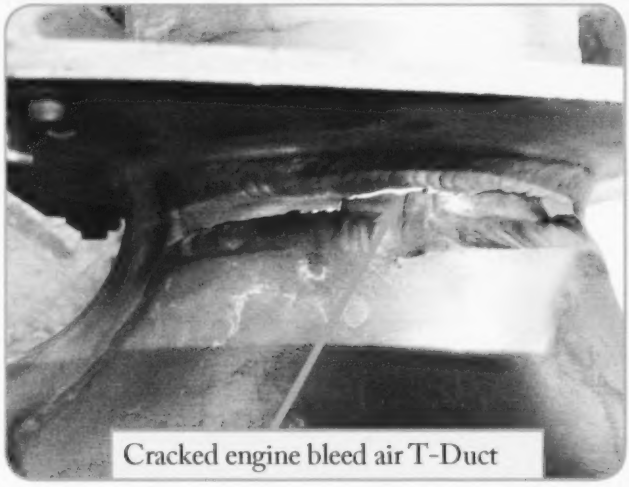
During a scheduled maintenance inspection task, the engine bleed air T-Duct below the pre-cooler on the right-hand pylon was found cracked.

The T-Duct was replaced, making the aeroplane serviceable.

*Transport Canada Comments:*

*This would be the second Service Difficulty Report (SDR) reported by the operator in the past year for this type of T-Duct failure.*

*The responsible type certificate holder for this aeroplane has been notified and Transport Canada Civil Aviation is advising all Embraer 170 owners, operators and maintainers to pay close attention to this area and duct.*



Cracked engine bleed air T-Duct

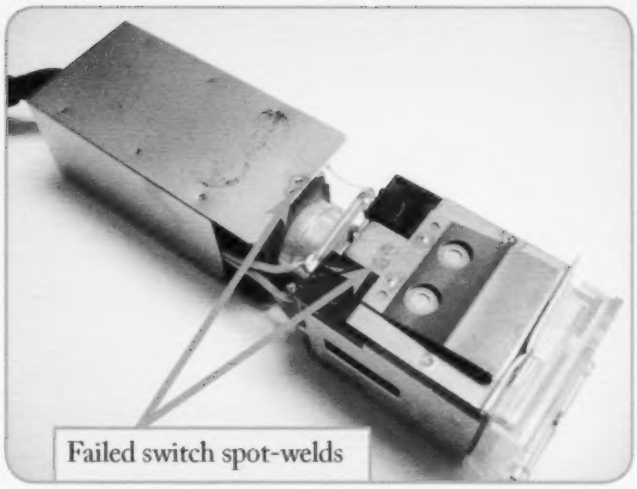
## Failed Annunciator Switch

**SDR submitted:**

During taxi for takeoff, the crew noticed a left-hand (L/H) engine fire warning indication. Both engines were shut down and the passengers were deplaned.

As reported by maintenance, the fault was with the L/H fire bottle switch pushbutton which also acts as an annunciator light.

The switch is mounted inside a metal case where the spot-welds holding the switch within the case had failed allowing the switch to move around within the case due to normal vibrations. This caused the switch wires to ground-out on the case which lead to the false fire indication and the flight crews' requirement to shut down both engines and evacuate the passengers.


Failed switch spot-welds

The switch was replaced, making the aeroplane serviceable.

*Transport Canada Comments:*

*An indication fault as seen here can be as serious as a true engine fire fault.* 🛠

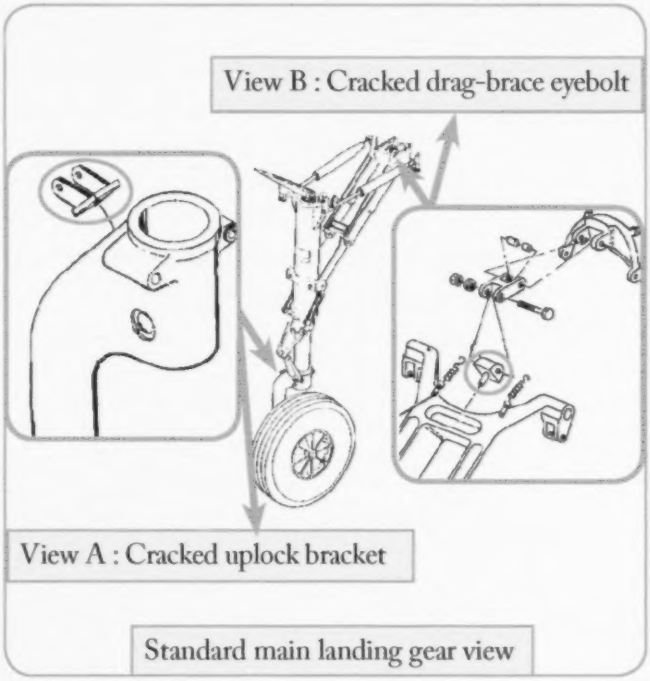


## Main Landing Gear Component Cracks

**SDR submitted:**

During a 5 year main landing gear (MLG) inspection, cracks were discovered in the uplock bracket (View A) and the drag-brace eyebolt (View B) by the non destructive testing (NDT) technician.

The discrepant parts were replaced and the MLG assembly was made serviceable for re-installation onto the aeroplane.




*Transport Canada Comments:*

*The requirement to NDT the faulted items for this landing gear at the 5 year visit are not required by the manufactures inspection maintenance program and it was through the proactive initiative of the maintainer that these cracks were found.*

*As commented by the maintainer, it's believed that even with a total failure of the drag-brace eyebolt and uplock bracket, due to the redundancy of the design, the gear would have functioned safely, yet operational discrepancies may be noted.*

*Transport Canada Civil Aviation is advising all owners, operators and maintainers of this possible MLG condition.* 🛠

Learjet 35A SDR # 20120710012

## Heat Damage to the Windshield Anti-ice Nozzle

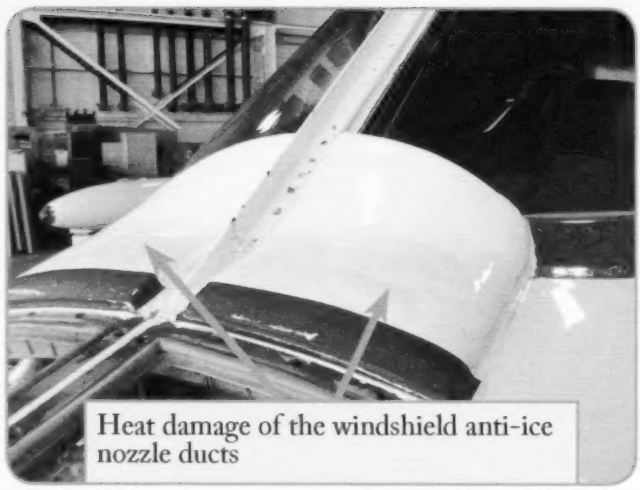
**SDR submitted:**

The flight crew reported a window overheat master caution when at 40 000 feet in cruise with the outside air temperature at -55 degrees C.

Maintenance troubleshooting discovered the windshield ram air modulating valve had internally failed (input shaft had separated from the internal bellows). The valve was replaced and the system function tested serviceable.

As a result of the failing windshield ram air modulating valve, both the left and right windshield anti-ice nozzle ducts received extensive heat damage.

The left and right ducts were removed for repair and the windshields were inspected for possible heat damage.



Heat damage of the windshield anti-ice nozzle ducts

*Transport Canada Comments:*

*Any form of windshield anti-ice nozzle heat damage is an indication of a failed pre-cooling or overheat detection system.*

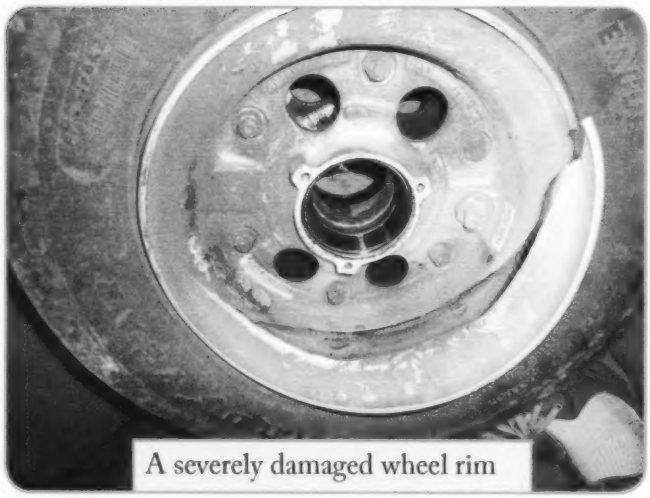
Learjet 35A SDR # 20120812001

## Main Wheel Rim Failure

**SDR submitted:**

The aircrew reported a tire failure on roll out after landing. The tire was serviced the day before the flight where no-defects were reported. The #3 main wheel out-board rim was found to be severely damaged where it appears that a crack began at the rim bead and propagated around almost half of the rim circumference.

The aeroplane was inspected for possible foreign-object-damage (FOD), the wheel assembly was replaced and the aeroplane was returned to service.



A severely damaged wheel rim

*Transport Canada Comments:*

*Through discussion with the operator, it has been confirmed that for all tire assembly replacements, the rim halves require an eddy current inspection in the bead seat radius. Reference Learjet aircraft maintenance manual (AMM) 32-42-00.*

## Main Landing Gear Door Attachment Fitting

**SDR submitted:**

On departure during taxi-out, the line-maintenance crew notified the flight-crew that the left-hand main landing gear (MLG) door was flapping in the wind. Just prior to this, a Sikorsky S-92 had been operating in close vicinity to the aeroplane, violently rocking the aeroplane. It is suspected that the downwash from the helicopter caused the gear door fitting to crack as there was no dirt to indicate a pre-existing crack.

Broken attachment fitting on the main landing gear door

The fitting was replaced and the aeroplane was returned to service.

*Transport Canada Comments:*

*As seen in the illustrated parts catalog 52-80-11, the rod attachment to the MLG door is done through a bolt, washer, floating bushing and castellated nut with cotter-pin. The floating bushing ensures that there is no clamping or pinching effect on the attachment fitting of the MLG door when the nut is torqued.*

*The correct installation for this attachment is critical to ensure the fittings integrity.*

*It is also an essential point to note that after any form of adverse handling of an aeroplane, be that in the air or on the ground, that a specific maintenance inspection be done to prevent scenarios as such defined in this article.*

Garrett, TPE331-11U

SDR # 20120924006

## Engine Failure Due To Overhauled Idler Gear

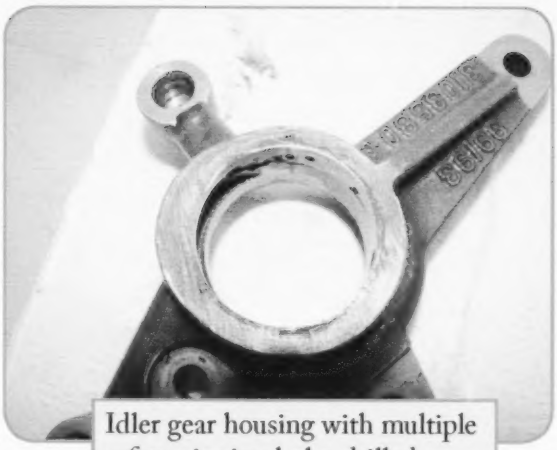
**SDR submitted:**

A maintenance report indicated that the right hand engine flamed out approximately 40 miles from the runway. Landing was carried out without incident. Troubleshooting revealed a failure of the engine internal drive of the fuel pump

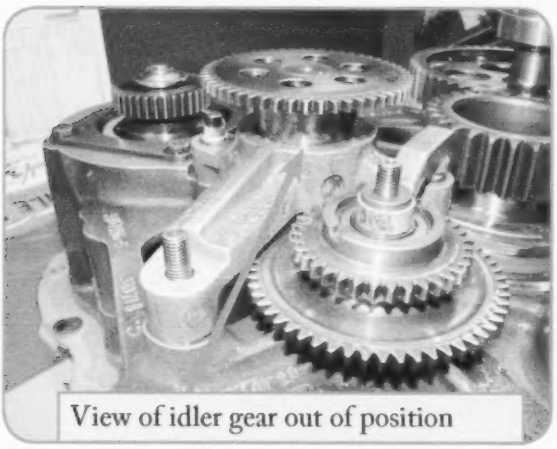
***Transport Canada Comments:***

*This engine failure was caused by a loss of drive to the fuel pump and fuel control unit which ultimately shut the engine down. The reason for the loss of drive was the idler gear bushing had backed out of the housing assembly. This caused the gear to migrate out of position and loose contact with the other gears in the system. This unit had been overhauled and the bushing replaced (likely more than once) in its service history. It is not known how many times this procedure had been accomplished on this particular unit (it is not a serialized part and as such is not tracked).*

*As engine fleets age (airframes as well) maintainers and overhaulers must take extra care to look for unusual conditions and wear that the designer may not have been able to predict when the product was first envisioned. Aging aircraft issues are and will continue to be a great challenge to everyone involved in the aviation industry.*



Idler gear housing with multiple safety pinning holes drilled



View of idler gear out of position

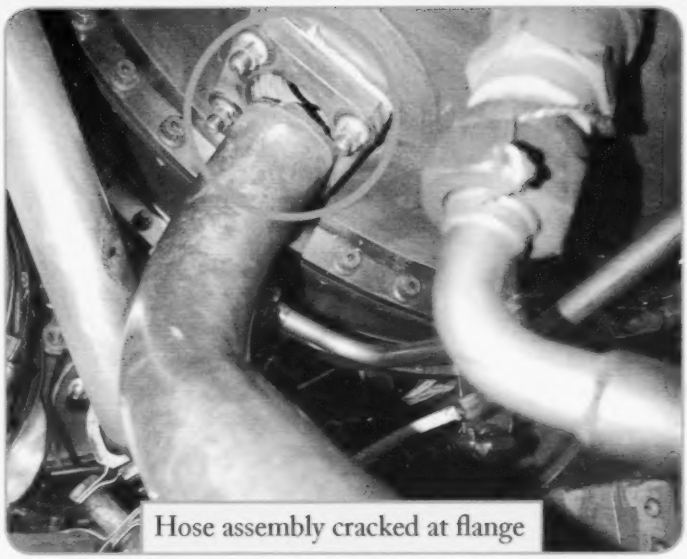
Garrett, TPE331-12UAR-703H SDR # 20120720001

## Cracked Bleed Air Line

**SDR submitted:**

When ground testing an engine for an unscheduled propeller dynamic balance, the right-hand (R/H) engine flexible p3 bleed air hose cracked at the flange and separated from the engine case. This caused abnormal exhaust gas temperature values, loss of power, pressurization system failure (only from R/H engine supply) and engine inlet anti-ice failure.

The flexible hose assembly became loose and chaffed on the R/H engine fire extinguisher spray pipe causing its failure. Hot air coming from the broken flange burned the electrical wires causing failure of the R/H engine computer, the fluctuation in the temperature indicator and caused the engine cowling seals in zone 1 to melt.


Hose assembly cracked at flange

*Transport Canada Comments:*

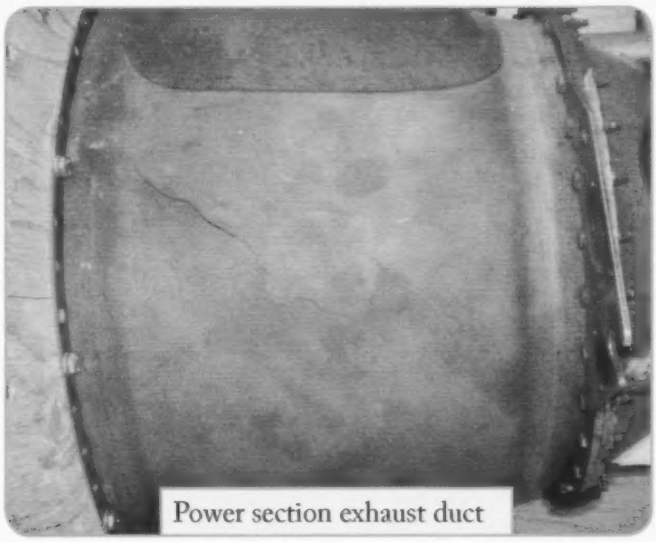
*There is a post Service Bulletin line assembly available (part number 13711543L401) that addresses this problem. (Service Bulletin 21-JM 7797)*

Pratt & Whitney Canada, PT6A-34 SDR #20120618007

## Cracked Power Section Duct

**SDR submitted:**

During a routine inspection, a crack was noticed on the exhaust duct between the "b" flange and "c" flange of the power section.


Power section exhaust duct

*Transport Canada Comments:*

*The fact that this was found during a routine inspection would indicate that the crack initiated and propagated very quickly. It serves as a reminder to pay close attention when conducting any inspections however 'routine' or cursory they may be. Good job spotting this one considering the crack was located on the top of the engine on a DHC-6 aeroplane. This is not the easiest location to access!*

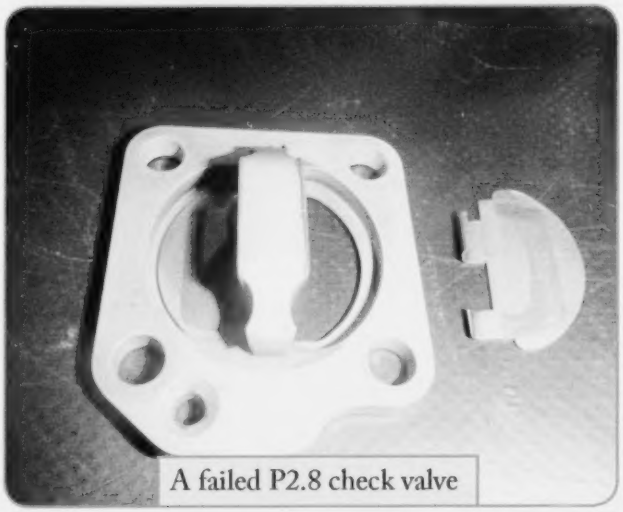
Pratt & Whitney Canada, PT6C-67C SDR # 20120803005

## Failed P2.8 Check Valve

**SDR submitted:**

During a 50 hour inspection on an Augusta AW139, a piece of the P2.8 check valve was found in the engine compartment of the #2 engine.

The flapper valve is Post-Pratt & Whitney Service Bulletin 41042. This was introduced as a result of a similar problem with the Pre-Service Bulletin valves.



A failed P2.8 check valve

*Transport Canada Comments:*

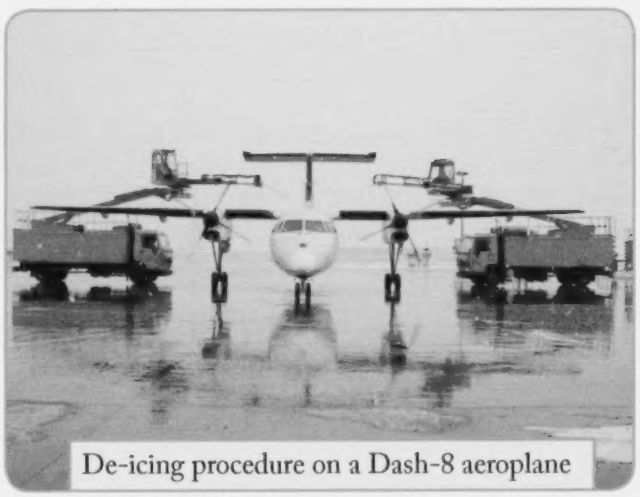
*Service Bulletin 41042 introduced a more robust check valve with improved hinges and contact area for the butterfly. It is obvious that there is still a potential for valve malfunction (due to the hostile environment in which the valve is located). Transport Canada Civil Aviation recommends maintainers inspect this area as per maintenance instructions and any time access permits.*

Pratt & Whitney Canada, PW120A SDR # 20130110001

## Odor In Cabin Caused By Glycol Ingestion

**SDR submitted:**

On descent, the flight crew noticed a strong burning plastic smell in the cockpit. An emergency was declared and they donned their oxygen mask. Some electrical systems and engine bleeds were turned off. After a few minutes the smell dissipated. The aeroplane landed without further incident. A maintenance team was dispatched to the outstation and determined that the contamination source originated from the #1 bleed system. The aeroplane was ferried to a maintenance base with the #1 bleed system selected off. Further troubleshooting revealed traces of glycol contamination at the inter compressor case (ICC) plenum, also an unidentified particle was found at the ICC drain. The drain was cleaned, engine ran, environmental system tested and test flight successfully conducted before returning the aeroplane into service.



De-icing procedure on a Dash-8 aeroplane

*Picture by Photographer Chris Schock*

*Transport Canada Comments:*

*With the return of the icing season, crews are cautioned to follow the recommended procedures when de/anti-icing their aeroplane. Ground crews are also reminded to use caution while carrying out their duties and avoid spraying de/anti-icing fluids into the intake area of aeroplane's engines. Aircraft manufacturers publish procedures for de-icing and anti-icing their aeroplanes.*

# ROTORCRAFT

Aerospatiale, AS350 B2 SDR # 20121207004

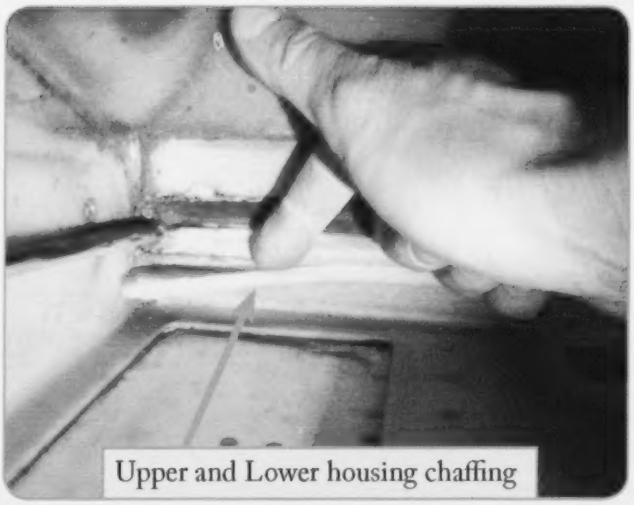
## Aerofilter Installation Chafe

**SDR submitted:**

While conducting a "T" inspection on an AS350 B2 with an FDC aerofilter assembly installed, a crack was found in the fiberglass. The fiberglass was worn on the aft flange where upper housing part number (P/N) 1350A3-1 contacts lower housing P/N 1350A4-3. The lower housing caused chafe damage to the upper housing. If not detected, the aft flange could have completely worn through and gone into the engine.

*Transport Canada Comments:*

*A heads up to maintainers that have this STC installed to pay attention to this area during installation and inspection.*



Upper and Lower housing chaffing

Aerospatiale, AS350 B3 SDR # 20130510004

## Collective Potentiometer Intermittent

**SDR submitted:**

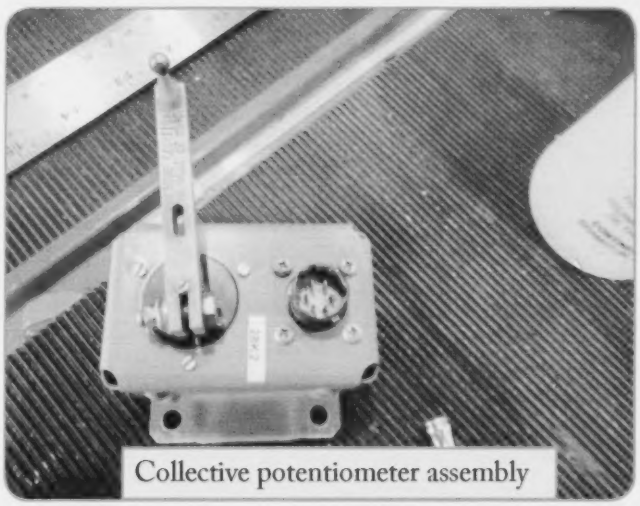
On a flight just before a fuel stop, the yellow governor light illuminated on the master caution panel.

The pilot landed without incident.

After discussion with the pilot about the fault code and the power being cycled on the aircraft, as there was no sign of the yellow governor light or fault, he returned to base.

Upon returning to base, the collective was looked on the VEMD (Vehicle Engine Multifunction Display) and it showed a consistent signal throughout the range of travel. It flew approx 3.5 hours with no further incident from the initial fault.

The part was replaced once a new one was obtained.



Collective potentiometer assembly

*Transport Canada Comments:*

*Eurocopter issued Alert Service Bulletin 76.00.18, which introduces a modification to eliminate the potential for a rotor RPM drop in-flight. The modification involves reconditioning the electrical harness that connects the engine computers digital engine control unit (DECU) to the engine anticipator potentiometer, in order to eliminate any over-length and loops from this electrical harness.*

Bell 412 CF

SDR # 20130128024

## Instrument Panel Bundle Chaffing

**SDR submitted:**

A pilot reported lateral cyclic impulses was felt in all flight regimes when the autopilot was on. Extensive trouble shooting was carried out over a 3 week period. The final rectification of the problem was the replacement of wire C943D22 which was found chaffing on the aircraft structure under the instrument panel on the left-hand side. The wire that was replaced was found in wire bundle K-TJ3-4B which was part of the EFIs modification.

A test flight was carried out serviceable and the aircraft was returned to service.

*Transport Canada Comments:*

*Very difficult defect to locate. The operator added that the rest of the fleet had been inspected with no similar defects discovered.*

Wire bundle chaffing under the instrument panel

Bell 430

SDR # 20130430014

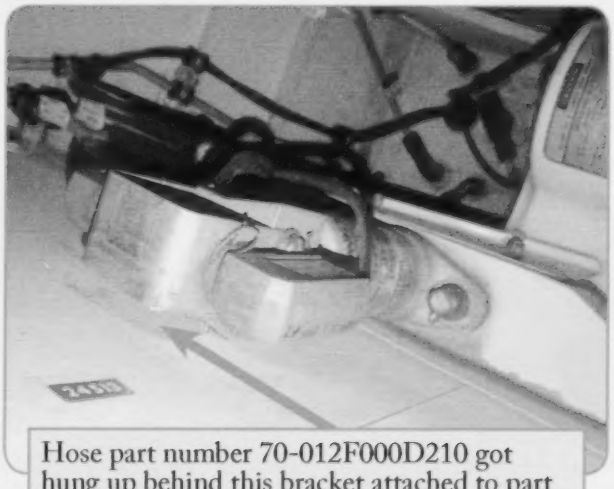
## Landing Gear Extension Failure

**SDR submitted:**

An aircraft was on approach when the pilot attempted to extend the retractable landing gear and did not obtain a green advisory light for the left-hand (L/H) main landing gear.

After 5 attempts with the primary landing gear handle, the pilot decided to pull the emergency gear handle with no result.

A second passenger onboard riding in the copilot seat who happened to be a pilot was able to contact maintenance personnel by phone. While in a hover, the passenger was able to exit the aircraft from the copilot's seat and locate an aircraft jack. With the nose gear and right-hand (R/H) main gear fully extended and locked, the pilot was able to rest both wheels on the tarmac with power on while the passenger was able to get the aircraft jack positioned under the L/H aft jacking point with the pilot keeping the aircraft light on gear.



Hose part number 70-012F000D210 got hung up behind this bracket attached to part number 222-336-001-105 downlock actuator.

Once the aircraft jack was positioned, the pilot was able to rest the aircraft on two extended gears and the jack then successfully shut the aircraft down.

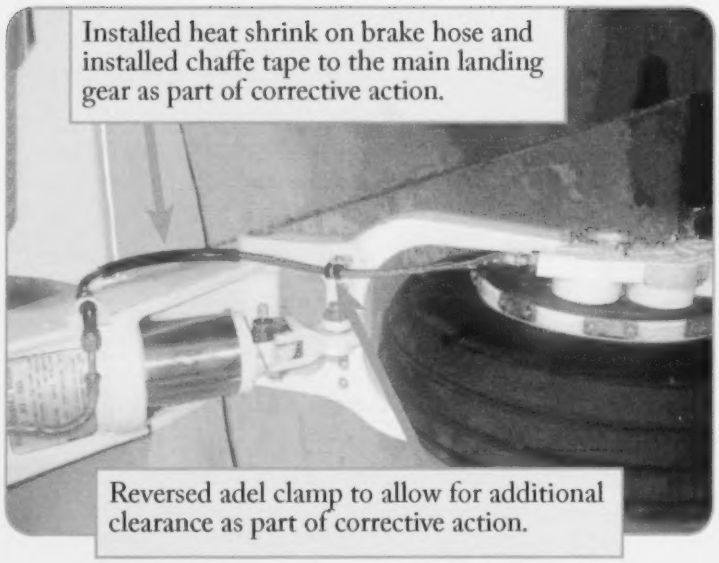
An Aircraft Maintenance Engineer (AME) arrived and determined that the L/H wheel brake hose part number (P/N) 70-012F000D210 was hung up on the down lock actuator P/N 222-336-001-105 not allowing the L/H gear to extend. The AME was able to free the brake hose and extend the L/H gear.

The operator took the following corrective actions to prevent a reoccurrence:

The L/H and R/H brake hoses were replaced and the hoses repositioned to prevent interference, heat shrink was installed on the hose with chafe tape on the landing gear strut to prevent chafe and adel clamp along with the hose repositioned to prevent future fouling. The gear was swung on jacks several times. The aircraft was returned to service.

*Transport Canada Comments:*

*This incident illustrates the importance and vigilance of routing and proper security of hoses and clamps in vital aircraft systems. Failure to do so may have catastrophic consequences.*



Installed heat shrink on brake hose and installed chaffe tape to the main landing gear as part of corrective action.

Reversed adel clamp to allow for additional clearance as part of corrective action.

Eurocopter France, EC130 B4 SDR # 20110222012

## #1 Bearing and Driveshaft Damaged

**SDR submitted:**

The helicopter was parked outside with all the necessary covers and heaters installed. There had been blowing snow for the past day prior to this incident. For the first flight of the day, the helicopter was ground run and positioned closer to where the passengers were to be picked up. This flight took 30 seconds. After this short flight the pilot reported that there may have been an unusual vibration therefore helicopter was inspected. The Aircraft Maintenance Engineer (AME) discovered that the #1 bearing and driveshaft were damaged. The rear shaft had contacted the Fenestron and a rub mark was evident on the shaft. The #1 bearing attachment bracket was loose and holes had been worn oblong. The helicopter was brought inside a hangar and the horizontal stab was removed and it was discovered that the bulkhead under the #1 bearing was cracked approximately 15.24 cm (6 inches) long. There was evidence that water had entered the hollow drive shaft and caused this vibration and subsequent damage. Approximately 15 ml of water was collected after the snow had melted from the rear end of the shaft.

*Transport Canada Comments:*

*The investigation determined that blowing snow did enter the driveshaft and caused an imbalance of the driveshaft which in turn caused this damage.*

*Pilots and AMEs should be extra vigilant in inspecting this area during the preflight and take necessary precautions to prevent any moisture from entering the driveshaft (plugs, covers etc)*

# Hangar Noise

Boeing, 737-2S2C SDR # 20121113005

## Flap Transmission Universal Joint Bolt Failure

It was during a standard ground operation of a Boeing 737-200 aeroplane when a flap retraction discrepancy was discovered with the right wing outboard flap panel. This was detected as the outboard flap panel would not fully retract past the #1 position. Further maintenance investigations revealed that a #7 flap transmission universal joint bolt was missing its' adjoining locking-nut, as seen in figures 1 and 2. The bolt thread to pin shank had sheared allowing it to migrate out from its yoke. The defective bolt was replaced, a dual inspection and functional checked was performed and the aeroplane was returned to service.

Through the evaluation of the operator, it was suspected that the cause of the universal joint bolt failure may have been attributed to stress corrosion imparted by a possible over-torque of the locking-nut and/or aggravated due to the aeroplanes previous operational environment. As a subsequent precautionary measure, the operator removed all flap transmission universal joint bolts (quantity 4, part number (P/N) 65-76606-1 and quantity 4, P/N 65-76607-1) for a magnetic particle inspection (MPI) resulting in a second bolt being indentified with a hair line crack, as seen in figure 3.

Further precautionary measures were taken from the operator through a campaign to inspect their remaining B737 aeroplane for any similar potential defects.

As an added measure of safety by the operator, three additional actions were taken to prevent flap transmission universal joint bolt failures as follows;

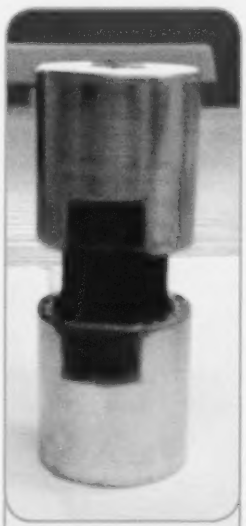
- "high lite" the effected attaching bolt hardware with yellow paint to ensure any loss of retention is readily detectable.
- include a specific task within the pre-flight inspection for the presence of the locking nut on the bolt of the universal joint assemblies.
- place the flap transmissions assembly on an in house soft time overhaul limit of 9000 hours or 10 years, whichever occurs first.

Through this proactive approach by the maintainer, the company's mandate pertaining to safety was met.

A review of Boeing's available maintenance documents in relation to this event identified the issuance of Service Bulletin 737-27-1265 in March 2005 which recommends the replacement of the universal joint bolts with a newly designed bolt.

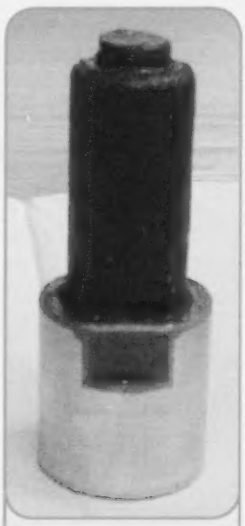
The bolt material was changed to address stress corrosion and a self-locking castellated nut with cotter pin was added to address the potential backing-off and loss of the bolt.

*Figure 1*



Missing retention nut and bolt threaded end

*Figure 2*



Missing bolt threaded end and extensive corrosion

*Figure 3*

Universal joint bolt threaded end intact but hairline crack detected

# Equipment Airworthiness Directives (ADs)

*Transport Canada (TC) endeavours to send copies of new Airworthiness Directives (ADs), which are applicable in Canada to the registered owners of the affected products. Equipment/appliance ADs are often only distributed to our regional offices because the owners of aircraft affected by this type of AD are not generally known.*

*Aircraft Maintenance Engineers (AMEs) and operators of the affected products are encouraged to obtain further information or a copy of the ADs from their regional TC office, their local Transport Canada Centre (TCC), their Principal Maintenance Inspector (PMI), or from the Civil Aviation AD website at: www.tc.gc.ca/cawis-swimn*

| Manufacturer | AD Number | Origin | Description |
|---|---|---|---|
| HONEYWELL | CF-2013-25 | Canada | Emergency Locator Transmitter – Battery Wiring Installation Discrepancies |
| STC SA03-38<br>STC ST00830SE | 2013-19-23 | United States | Fatigue cracking of various principal structural elements |

# Special Airworthiness Information Bulletins (SAIB)

*A Special Airworthiness Information Bulletin (SAIB) is an information tool that alerts, educates, and makes recommendations to the general aviation community. It is non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD).*

| SAIB Number | Make/Company | Subject | Issue Date |
|---|---|---|---|
| **Federal Aviation Administration** - *www.faa.gov/aircraft/safety/alerts/SAIB/* | | | |
| CE-14-03 | Univair Aircraft Corporation | Wing Spar Damage | 11/15/13 |
| CE-14-02 | XtremeAir | Engine Mount; inspection and replacement | 11/05/13 |
| CE-14-01 | APEX Aircraft | Placards and Markings: Flat Spin Recovery and Aircraft Flight Manual (AFM) Revision of CAP 10B Aeroplanes | 11/04/13 |
| CE-13-43R1 | Cirrus Design Corporation | Aircraft Fuel Distribution System and Ice/Rain Protection System | 09/30/13 |
| HQ-13-46 | Stemme GmbH & Co. KG | Standard Airworthiness Certificate Category for Stemme S10-VT Gliders | 09/30/13 |
| CE-13-45 | General Aviation | Engine Exhaust; Tailpipe V-band Couplings | 09/05/13 |
| CE-10-34R2 | Beechcraft Corporation<br>Hawker Beechcraft Corporation | Alternative Methods of Compliance (AMOC) to Airworthiness Directive (AD) 89-25-10 and 89-25-08 | 08/30/13 |
| CE-13-43 | Cirrus Design Corporation | Aircraft Fuel Distribution System and Ice/Rain Protection System | 08/30/13 |
| CE-13-44 | Revo, Incorporated | Aircraft Fuel Filter/Strainer | 08/30/13 |
| CE-10-34R1 | Beechcraft Corporation<br>Hawker Beechcraft Corporation | Alternative Methods of Compliance (AMOC) to Airworthiness Directive (AD) 89-25-10 and 89-25-08 | 08/20/13 |
| **European Aviation Safety Agency** - *http://ad.easa.europa.eu/sib-docs/page-1* | | | |
| 2013-19 | | Non-stabilized Approach followed by Runway Overrun at Lyon Saint Exupéry Airport | 11/14/13 |
| 2012-06R2 | | Defective Standard Hardware - MS21042, NAS1291 and LN9338 Self-Locking Nuts, and NAS626 Bolts | 10/28/13 |
| 2013-18 | | Laundering of Scrapped Jet Engine Parts | 10/16/13 |
| 2013-17 | Cessna Aircraft Company | U206F Aeroplanes - Elevator Trim Tab Actuator Corrosion | 10/14/13 |
| 2013-16 | Pratt & Whitney Canada | PT6A Engines - Reduction Gearbox Failures | 10/14/13 |
| 2013-15 | | Maintenance of Night Vision Imaging Systems (NVIS) | 10/10/13 |
| NM-07-47 | The Boeing Company | 737 Aeroplanes equipped with Forward Airstairs | 10/08/13 |
| 2013-14 | SAAB AB | SF340A and 340B Aeroplanes - Aileron Bell Crank Bearing Failure | 09/20/13 |
| 2010-21R3 | | Activation of the European Geostationary Navigation Overlay Service "(EGNOS)" | 09/06/13 |
| 2013-13 | | Pilot Training - Artificial Pitch Control Feel | 09/04/13 |

# Service Difficulty Reports (SDRs)

*LEGEND*

JASC: **Joint Aircraft System Code number defining assembly/system/components**

SDR No.: **Transport Canada Civil Aviation (TCCA) assigned SDR control number — please quote in any correspondence or inquiries**

Region (RGN): **TCCA region of SDR submitter:**

PAC = Pacific
ONT = Ontario
ATL = Atlantic
VAR = Various
PNR = Prairie and Northern
QUE = Quebec
NCR = Ottawa (Headquarters)

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| **AIRCRAFT** | | | | | | |
| *AEROSPATIALE* | | | | | | |
| AS 350B | 2822 | FUEL BOOST PUMP | P94B12209 | FAILED | 20130916012 | PAC |
| AS 350B | 8310 | LOCK | | UNSERVICEABLE | 20130826008 | QUE |
| AS 350B2 | 2435 | STARTER SHAFT | 150SG11034 | BROKEN | 20130816002 | QUE |
| AS 350B2 | 2821 | DOME | | CRACKED | 20130916011 | ONT |
| AS 350B2 | 2822 | BOOST PUMP | P94B12209 | LEAKING | 20130816003 | QUE |
| AS 350B2 | 2900 | HYDRAULIC PULLEY | 350A35109222 | UNSERVICEABLE | 20130730003 | PNR |
| AS 350B2 | 6220 | HALF MOON BEARINGS | 704A33633261 | UNSERVICEABLE | 20130809008 | QUE |
| AS 350B2 | 6420 | TR HALF SHELL BEARINGS | 704A33633261 | UNSERVICEABLE | 20130813005 | PNR |
| AS 350B2 | 6730 | SERVO | | OVERHAULED | 20130918007 | PNR |
| AS 350B2 | 7921 | OIL COOLER | 704A33220025 | LEAKING | 20130925003 | PAC |
| AS 350B3 | 2900 | HYDRAULIC HOSE | 704A34412251 | LEAKING | 20130826016 | PNR |
| AS 350B3 | 2900 | HYDRAULIC HOSE | 704A34412271 | LEAKING | 20130821001 | PAC |
| AS 350BA | 7931 | OIL PRESSURE TRANSMITTER | 704A376420 | INTERMITTENT | 20130814002 | PNR |
| ATR 42 300 | 3246 | MAIN WHEEL BOLT | MS212500603 | SHEARED | 20130911003 | QUE |
| *AIR TRACTOR* | | | | | | |
| AT 602 | 7313 | PACKING | MS9388009 | CRACKED | 20130724001 | PNR |
| AT 802 | 2720 | SWAGE | | BROKEN | 20130726012 | PAC |
| AT 802A | 3246 | TIRE - NOSE | AA1E6 | RUPTURED | 20130812002 | PAC |
| AT 802A | 3246 | TUBE | 122511 | CRACKED | 20130729017 | PAC |
| AT 802A | 5534 | ATTACH BRACKET | 10A12000070 | CRACKED | 20130702009 | PAC |
| *AIRBUS* | | | | | | |
| A310 308 | 2910 | HYDRAULIC MANIFOLD | A2901150800000 | LEAKING | 20130822012 | QUE |
| A310 308 | 2910 | TUBE | 2244404523 | CRACKED | 20130826003 | QUE |
| A319 114 | 2420 | GENERATOR CONTROL UNIT | 740120C | FAILED | 20130919003 | QUE |
| A319 114 | 2910 | UPPER HEAD SUPPLY HOSE | 3214052010 | FAILED | 20130704004 | QUE |
| A319 114 | 2913 | ENGINE DRIVEN PUMP | 623977 | FAILED | 20130916009 | QUE |
| A319 114 | 3230 | NOSE LANDING GEAR UPLOCK | C247300016 | FAILED | 20130920014 | QUE |
| A319 114 | 3230 | RELAY | E0242A28A0 | FAILED | 20130911013 | QUE |
| A320 211 | 1200 | GEAR UPLOCK | | OVER GREASED | 20130719002 | QUE |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| A320 211 | 2120 | AIR INLET VALVE ACTUATOR | | FAILED | 20130711003 | QUE |
| A320 211 | 2897 | #2 CENTER TANK FUEL PUMP | 56812720205R | ARCING | 20130704001 | QUE |
| A320 211 | 2910 | FLEX LINE | AE2464051J0225 | FAILED | 20130731003 | QUE |
| A320 211 | 2910 | HYDRAULIC LINE | | FAILED | 20130722005 | QUE |
| A320 211 | 2997 | BLUE HYDRAULIC PUMP WIRE | | CHAFFING | 20130830017 | QUE |
| A320 211 | 3160 | COCKPIT INDICATION | | LOST | 20130829002 | QUE |
| A320 211 | 3230 | CABLE PULLEY | D3217016020200 | SHEARED | 20130802002 | QUE |
| A320 211 | 3230 | RIGHT-HAND MAIN LANDING GEAR UPLOCK | 201117014 | FAILED | 20130923003 | QUE |
| A320 211 | 3610 | CHECK VALVE | | CRACKED | 20130808006 | QUE |
| A320 211 | 520 | GEAR UPLOCKS | | OVER GREASED | 20130723005 | QUE |
| A320 214 | 520 | FUEL SYSTEM | | FUEL SPILL | 20130722006 | QUE |
| A321 211 | 2810 | FUEL SYSTEM | | SPILL | 20130830006 | QUE |
| A330 343 | 2910 | HYDRAULIC MANIFOLD | | LEAKING | 20130722002 | QUE |
| A330 343 | 3620 | BLEED MONITOR CONTROLLER | | FAILED | 20130820007 | QUE |
| *BAE - UK* | | | | | | |
| 3212 | 3246 | AFT WHEEL HALF | AHA1753 | BROKEN | 20130826005 | QUE |
| BAE 146 200A | 3230 | QUADRANT ASSEMBLY | HC323H006100 | CORRODED | 20130828008 | MAR |
| BAE 146 200A | 3240 | LEVER ASSEMBLY WHEEL BRAKE | HCZ72H002200 | CORRODED | 20130828009 | MAR |
| *BEECH* | | | | | | |
| 1900C | 2730 | BOB WEIGHT STOP | | BENT | 20130722003 | MAR |
| 1900C | 2842 | FUEL FEED SENSOR | 1143890407 | INCORRECT PART NUMBER | 20130705001 | PAC |
| 1900D | 2120 | TUBE ASSEMBLY | 1145550411 | NEW | 20130913008 | PAC |
| 1900D | 2752 | ACTUATOR | 1295210512 | CRACKED | 20130923008 | PNR |
| 1900D | 2900 | HYDRAULIC LINE | 1145803651 | CHAFFED THROUGH | 20130724009 | PNR |
| 1900D | 5520 | HINGE SUPPORT | 1016100121 | CRACKED | 20130823006 | PAC |
| 200 | 5210 | CHANNEL | 50430043557822 | CORRODED | 20130829012 | PNR |
| 200 | 5315 | BEAM | 504200337 | CRACKED | 20130827005 | PNR |
| 200 | 7220 | ICE VANE INLET | | TORN | 20130905003 | PNR |
| A100 | 3222 | TORQUE KNEE | 508103237 | OVERHAULED | 20130920002 | ONT |
| A100 | 3233 | YOKE CLEVIS | AN2423A | CRACKED | 20130906001 | QUE |
| A100 | 3260 | SWITCH | 1003810061 | WORN | 20130925001 | ONT |
| A100 | 5512 | SKIN UPPER | 115620010427 | CRACKED | 20130911005 | QUE |
| A100 | 5520 | SHAFT | 1155240465 | CORRODED | 20130808001 | ONT |
| B100 | 3400 | GPS | GTN625 | BLANKED OUT | 20130911007 | QUE |
| B100 | 5753 | FLAP TRACK | 501600183 | CRACKED | 20130904005 | QUE |
| B200 | 3233 | ACTUATOR | 11238002217 | CRACKED | 20130830016 | PNR |
| C90A | 2100 | COMPRESSOR MOTOR | 1003840725 | USED | 20130826002 | PNR |
| C90A | 3230 | SWITCH | MS213212 | NEW | 20130729019 | PNR |
| C90A | 3260 | SWITCH | MS213212 | NEW | 20130729018 | PNR |
| *BELL TEXTRON - CAN* | | | | | | |
| 206B | 1000 | NUT | NAS12917 | CRACKED | 20130925002 | PAC |
| 206B | 2823 | SHUT OFF VALVE | AV24B1265AR | FAILED | 20130821006 | PAC |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| 206B | 6210 | BLADE TIP/END | | UNSERVICEABLE | 20130812003 | PAC |
| 206B | 6300 | DRIVESHAFT | 206040015 | OVER TEMP | 20130926001 | PNR |
| 206B | 6310 | INNER SHAFT | 206040222003 | OVERHAULED | 20130731006 | PNR |
| 206B | 6700 | TUBE ASSEMBLY | 206001189001 | LOOSE | 20130812009 | PNR |
| 206B | 7313 | NOZZLE | 23077068 | HANGING | 20130711002 | PNR |
| 206B | 7532 | BLEED VALVE | 23053176 | FAILURE TO CLOSE | 20130711008 | PAC |
| 206B 3 | 6300 | DRIVESHAFT | 206040015 | OVERHEAT | 20130806006 | PNR |
| 206L 1 | 6210 | MAIN ROTOR BLADE | 206015001115 | CRACKED | 20130830013 | PAC |
| 206L 1 | 6410 | TAIL ROTOR BLADE | 2062200301 | DELAMINATION | 20130805019 | PAC |
| 206L 1 | 6410 | TAIL ROTOR BLADE | 2062200301 | DELAMINATION | 20130805020 | PAC |
| 206L 4 | 6410 | TAIL ROTOR BLADE ASSEMBLY | 2062200301 | DELAMINATION | 20130722009 | PAC |
| 206L 4 | 7922 | CIRCUIT BREAKER | 35AMPS1CB17 | POP OUT | 20130724008 | QUE |
| 407 | 6210 | TIP CAP | | DEPARTED | 20130709003 | QUE |
| 407 | 6321 | GUIDE BOLT | D01641 | SHEARED | 20130812008 | PNR |
| 407 | 6410 | TAIL ROTOR BLADE | 406016100119 | VOID | 20130730001 | QUE |
| 407 | 8000 | STARTER RELAY | SM20ACD300A21 | CONTACTS OPEN | 20130702010 | PNR |
| *BELL TEXTRON - USA* | | | | | | |
| 204B | 2300 | CYCLIC TRIGGER SWITCH | PM212302 | USED | 20130912007 | PNR |
| 204B | 6420 | BOLT | NAS660419D | SHEARED | 20130820004 | PNR |
| 205A 1 | 6230 | SUPPORT | 204011404125 | NEW | 20130813006 | ONT |
| 205A 1 | 6510 | FITTING | 205031818001 | CRACKED | 20130705006 | PAC |
| 212 | 2432 | BATTERY BUS RELAY | MS24142D2 | FAILED | 20130815012 | PAC |
| 212 | 2436 | DC CONTROL UNIT | 51509002R | NO VOLTAGE | 20130815013 | PAC |
| 212 | 2916 | HYDRAULIC TANK | 205076135109 | CORRODED | 20130815014 | PAC |
| 212 | 3210 | CROSSTUBE | 212321103 | BROKEN | 20130724003 | PAC |
| 212 | 6220 | ROD END | 212010123101 | WORN | 20130815004 | PAC |
| 212 | 6300 | BOOT | 212040176103 | LEAKING GREASE | 20130807002 | PAC |
| 212 | 6320 | TX MOUNT UPPER WASHER | 20130922001 | SCRAP | 20130922002 | QUE |
| 212 | 6320 | TX MOUNT UPPER WASHER | 204030913005 | SCRAP | 20130922001 | QUE |
| 212 | 7720 | T5 HARNESS ASSEMBLY | 312048401 | OPEN CIRCUIT | 20130726017 | PAC |
| 214B 1 | 7300 | FUEL CONTROL UNIT | 216062021 | OVERHAULED | 20130715017 | PNR |
| 412CF | 6410 | TAIL ROTOR BLADE | 212010750127F | DEBONDED | 20130726004 | PNR |
| 412EP | 6730 | CYLINDER CONNECTING | 41004706001 | NEW | 20130711001 | QUE |
| *BELLANCA* | | | | | | |
| 7ECA | 3246 | TAIL GEAR ASSEMBLY | 3200 | SHEARED | 20130923016 | PNR |
| 8GCBC | 2720 | PEDAL - TOE BRAKE FRONT | 315371FR | BROKEN | 20130722007 | PNR |
| *BOEING* | | | | | | |
| 727 225 | 8000 | PRESSURE SWITCH | 1G309 | FAILED | 20130702014 | PAC |
| 727 227 | 2760 | ROD ASSEMBLY | 414001410 | BROKEN | 20130710011 | PAC |
| 727 243 | 2910 | MODULAR PACK | 65178231 | FAILED | 20130726018 | PAC |
| 727 243 | 5230 | MANIFOLD ASSEMBLY | AE4895600 | CRACKED | 20130803011 | PAC |
| 737 2R8C | 3244 | TIRE - BRIDGESTONE | APS01291B4014 | FAILED | 20130726007 | ONT |
| 737 36Q | 2750 | FLAP BOOM CABLE | 694353126 | FRAYED | 20130830014 | PNR |
| 737 6CT | 3230 | LIMIT SWITCH | MS250114 | DIRTY | 20130815001 | PNR |
| 737 76N | 2520 | CABIN SMELL | | OVERHEATED | 20130830007 | PNR |
| 737 76N | 3417 | AIR DATA MODULE | C17001CA01 | FAILED | 20130913004 | PNR |
| 737 7CT | 1200 | HYDRAULIC SYSTEM | | OVERSERVICED | 20130829005 | PNR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| 737 7CT | 2312 | AUDIO CONTROL PANEL | 5145177 | FAILED | 20130903010 | PNR |
| 737 7CT | 2530 | COFFEE MAKER | 6475300105 | OVERHEATED | 20130806004 | PNR |
| 737 7CT | 2742 | STAB TRIM MOTOR | 6355C000101 | FAILED | 20130829003 | PNR |
| 737 7CT | 2910 | LOW PRESSURE LIGHT | | ILLUMINATED | 20130829006 | PNR |
| 737 7CT | 3230 | MANUAL EXTENSION LIMIT SWITCH | MS250114 | FAILED | 20130927001 | PNR |
| 737 7CT | 3411 | PITOT TUBE | 0851HT1 | HEATER FAILED | 20130710002 | PNR |
| 737 7CT | 3420 | AIR DATA INERTIA REFERENCE UNIT | HG2050AC07 | FAILED | 20130913003 | PNR |
| 737 7CT | 5753 | TRAILING EDGE FLAP FITTING | 113A135Y1 | SHEARED | 20130723006 | PNR |
| 737 8CT | 4930 | FUEL MANIFOLD | | LEAKING | 20130819014 | PNR |
| 737 8CT | 520 | CABIN COMPARTMENT | | SMELL | 20130717009 | PNR |
| 737 8CT | 5610 | CAPTAIN #1 WINDOW | 5893543149 | UNSERVICEABLE | 20130904004 | PNR |
| 757 2B7 | 5230 | SWITCH | 5EN3206 | UNSERVICEABLE | 20130815010 | PNR |
| 767 375 | 2150 | ACTUATOR EXHAUST | 20224324 | FAILED | 20130731002 | QUE |
| 767 375 | 2923 | ADP FILTER MODULE | | LEAKING | 20130731001 | QUE |
| 767 375 | 3420 | INERTIAL REFERERENCE UNIT | HG1050AD11 | FAILED | 20130906003 | QUE |
| *BOMBARDIER* | | | | | | |
| BD 100 1A10 | 2910 | HYDRAULIC TUBE ASSEMBLY | 1005354124005 | FAILED | 20130702008 | QUE |
| BD 100 1A10 | 3244 | TIRE | 263K432 | BULGED | 20130816004 | PNR |
| BD 100 1A10 | 3260 | PROXIMITY SENSOR ELECTRONIC UNIT | 302270402 | FAILED | 20130712003 | QUE |
| BD 100 1A10 | 4900 | AUXILIARY POWER UNIT | 36150BD | FAILED | 20130729014 | QUE |
| BD 700 1A10 | 1000 | CABLE GUARD PIN | MS203922C95 | MISSING | 20130911002 | ONT |
| BD 700 1A10 | 2421 | VARIABLE FREQUENCY GENERATOR | BA0580106 | REPLACED | 20130725002 | ONT |
| BD 700 1A10 | 5210 | TENSATOR SPRING | GS3210580001 | CRACKED | 20130911009 | ONT |
| BD 700 1A11 | 2420 | VARIABLE FREQUENCY GENERATOR | GL51111035 | OIL SUMP FRACTUR | 20130913002 | QUE |
| CL600 2B19 (RJ100) | 2100 | AIR CONDITIONING | 601R950003 | OVERHEATED | 20130807007 | QUE |
| CL600 2B19 (RJ100) | 2421 | AIR DRIVEN GENERATOR DEPLOYMENT CONTROL PANEL | 820465 | DEPLOYED | 20130923009 | QUE |
| CL600 2B19 (RJ100) | 2621 | BOTTLE FIREX | 365000183 | DISCHARGED | 20130708007 | QUE |
| CL600 2B19 (RJ100) | 2721 | YAW DAMPER ACTUATOR | 6229968001 | FAILED | 20130708008 | QUE |
| CL600 2B19 (RJ100) | 2820 | FUEL LINE | 601R622993 | CHAFED | 20130916006 | MAR |
| CL600 2B19 (RJ100) | 2910 | HYDRAULIC TUBE | AE4096G0060 | FAILED | 20130723004 | QUE |
| CL600 2B19 (RJ100) | 2911 | GAUGE | 600751253 | BLEW APART | 20130815003 | MAR |
| CL600 2B19 (RJ100) | 3230 | GEAR SYSTEM | | FAILED | 20130910005 | QUE |
| CL600 2B19 (RJ100) | 3230 | SELECTOR VALVE | 601R751461 | FAILED | 20130828002 | MAR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| CL600 2B19 (RJ100) | 3230 | SELECTOR VALVE | | FAILED | 20130923011 | QUE |
| CL600 2B19 (RJ100) | 3230 | VALVE MAIN LANDING GEAR SELECTOR | 750005000 | FAILED | 20130710003 | QUE |
| CL600 2B19 (RJ100) | 3244 | NOSE TIRE | | FAILED | 20130710009 | QUE |
| CL600 2B19 (RJ100) | 5312 | 559 PRESSURE BULKHEAD | | CRACKED | 20130806002 | QUE |
| CL600 2B19 (RJ100) | 5312 | 621 PRESSURE BULKHEAD | | CRACKED | 20130806001 | QUE |
| CL600 2B19 (RJ100) | 5610 | WINDOW | 601R3303320 | CRACKED | 20130731007 | MAR |
| CL600 2B19 (RJ100) | 5610 | WINDOW SIDE | NP13932187226 | CRACKED | 20130910006 | QUE |
| CL600 2B19 (RJ100) | 5610 | WINDSHIELD | NP13932114 | CRACKED | 20130719003 | QUE |
| CL600 2C10 (RJ700) | 2760 | SPOILER SYSTEM | | FAILED | 20130912005 | QUE |
| CL600 2C10 (RJ700) | 2910 | HYDRAULIC HOSE | AS120G094180 | FAILED | 20130820006 | QUE |
| CL600 2C10 (RJ700) | 2910 | HYDRAULIC LINE | AE7178141 | FAILED | 20130820005 | QUE |
| CL600 2C10 (RJ700) | 2910 | HYDRAULIC RETRACT HOSE | AE71357812 | FAILED | 20130710005 | QUE |
| CL600 2C10 (RJ700) | 3520 | PASSENGER SERVICE UNIT | 8030006263 | FAILED | 20130812007 | QUE |
| CL600 2D15 (705) | 2721 | AILERON/RUDDER TRIM PANEL | CC670511143 | STUCK SWITCH | 20130920011 | MAR |
| CL600 2D15 (705) | 2910 | HYDRAULIC LINE | 524043 | CRACKED | 20130726009 | MAR |
| CL600 2D15 (705) | 2910 | HYDRAULIC TUBE | 524044 | CRACKED | 20130819012 | MAR |
| CL600 2D15 (705) | 3220 | PIN DOWEL | 521613 | DISLODGED | 20130926002 | PNR |
| CL600 2D15 (705) | 520 | RADOME | GC21905045 | BIRD STRIKE | 20130716005 | MAR |
| CL600 2D15 (705) | 5610 | WINDOW | | CRACKED | 20130812005 | MAR |
| CL600 2D24 (RJ900) | 2100 | AIR CONDITIONING | PACK | FAILED | 20130715013 | QUE |
| CL600 2D24 (RJ900) | 2120 | AIR CONDITIONING | PACK | FAILED | 20130710001 | QUE |
| CL600 2D24 (RJ900) | 3244 | MAIN TIRE | | BLOWN | 20130715015 | QUE |
| CL600 2D24 (RJ900) | 3620 | BLEED LEAK DETECTION SYSTEM | | FAILED | 20130910007 | QUE |
| CL600 2D24 (RJ900) | 5210 | PASSENGER DOOR | | JAMMED | 20130717002 | QUE |
| CL600 2E25 (RJ1000) | 3230 | SELECTOR VALVE | 533407 | FAILED | 20130904006 | QUE |
| *CANADAIR* | | | | | | |
| CL215 6B11(CL215T) | 5514 | FITTING-FINLET | 215T212054 | CRACKED | 20130920010 | PNR |
| CL600 2B16(601 3A) | 3230 | FITTING | MS219266D | UNSERVICEABLE | 20130916007 | ONT |
| *CESSNA* | | | | | | |
| 152 | 2721 | RUDDER RETURN SPRING | 31019613 | UNSERVICEABLE | 20130819015 | PAC |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| 152 | 3245 | INNER TUBE | | SPLIT | 20130726005 | ONT |
| 152 | 5541 | SPAR | 4330106 | CRACKED | 20130927008 | ONT |
| 172N | 2300 | SWITCH | | LOOSE | 20130923007 | PNR |
| 172N | 3213 | O-RING | AN6227B32 | DAMAGED | 20130702012 | PAC |
| 172N | 5753 | SWITCH | S19062 | STUCK CLOSED | 20130822008 | PNR |
| 172P | 3243 | BRAKE MASTER CYLINDER | 98820104 | SHEARED | 20130828001 | QUE |
| 172R | 2421 | ALTERNATOR | 991059111RX | MISSING SCREWS | 20130806003 | PNR |
| 172R | 2421 | ALTERNATOR | 991059111RX | NO CHARGE | 20130711004 | PNR |
| 172S | 2710 | AILERON CABLES | | SEVERELY FRAYED | 20130927006 | ONT |
| 172S | 7414 | MAGNETOS | 4371 | WORN | 20130809001 | ONT |
| 182N | 5312 | BULKHEAD ASSEMBLY | 7126161 | CRACKED | 20130701017 | PNR |
| 182S | 2721 | RUDDER TRIM INDICATION | 7136433 | ORIGINAL | 20130729016 | ONT |
| 208 | 7931 | CARRIER OIL SEAL FUEL CONTROL UNIT DRIVE | 3004085 | DEGRADED | 20130807005 | ONT |
| 208B | 3242 | BLEEDER SCREW | 7900300 | SERVICEABLE | 20130909002 | MAR |
| 208B | 3242 | BOLT-ANCHOR | 6901900 | FAILURE | 20130907001 | PNR |
| 208B | 5522 | TIP SKIN LEFT HAND AFT OUTBOARD | 26340008 | CRACKED | 20130909008 | MAR |
| 208B | 8000 | CONTACTOR | SM400D37 | UNSERVICABLE | 20130826011 | PNR |
| 210R | 7921 | HOSE | AE7013106H0351 | WORN CHAFED | 20130724006 | ONT |
| 414 | 3231 | BELLCRANK | 8411066 | SHEARED | 20130826006 | PNR |
| 525A | 3260 | CAPACITOR | 63183951 | OVERHEATED | 20130711006 | PNR |
| 550 | 2750 | FLAP GEARBOX | 556517538X | DAMAGED | 20130722004 | ONT |
| 550 | 2750 | GEARBOX | 556517538X | GEAR DAMAGED | 20130719001 | ONT |
| 750 | 7500 | VALVE CHECK | 99141711 | NEW | 20130826007 | ONT |
| A185F | 7800 | EXHAUST COLLECTOR | 075023847AWL | CRACKED | 20130814003 | PAC |
| A188B | 2912 | FILTER | | WORN | 20130904001 | MAR |
| R172K | 7300 | LINE | LW120980170 | BROKEN | 20130808002 | ONT |
| TU206G | 5520 | RIGHT HAND ELEVATOR AFT SPAR | 12346384 | CRACKED | 20130809002 | PNR |
| U206G | 2435 | STARTER | 643259A18R | CRACKED | 20130722011 | PNR |
| U206G | 3244 | TIRE | 723710 | FLAT | 20130722014 | PNR |
| U206G | 7314 | FUEL PUMP | R646212 | LOW PRESSURE | 20130722010 | PNR |
| *CIRRUS* | | | | | | |
| SR22 | 3240 | BRAKED CALIPER | 3052 | USED | 20130725003 | PNR |
| *CONVAIR - CAN* | | | | | | |
| 340 | 2433 | PHASE ADAPTER | 661102B | BURNT | 20130710004 | PAC |
| 340 | 3222 | NOSE LANDING GEAR STRUT | 34052101015 | BROKEN | 20130718004 | PNR |
| 340 | 3250 | NOSE STEERING ACTUATOR | 14030 | LEAKING | 20130815011 | PAC |
| 340 | 3260 | GEAR INDICATION | | FAILED | 20130704006 | PAC |
| 340 | 3418 | ANGLE OF ATTACK COMPUTER | C212061 | FAILED | 20130823012 | PAC |
| 340 | 5610 | WINDOW | 34031103019 | CRACKED | 20130702013 | PAC |
| 580 | 2422 | STATIC INVERTER | 1B8001G | FAILED | 20130705008 | PAC |
| 580 | 2720 | COUPLING | 24026402100 | CRACKED | 20130807006 | PAC |
| *CUB AIRCRAFT* | | | | | | |
| J3C65 | 2710 | BRACKET AILERON HINGE | 1299201 | CORRODED | 20130831001 | PNR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| *DEHAVILLAND CAN* | | | | | | |
| DHC 2 MKI | 2731 | ELEVATOR TRIM ROD | KAC2T47A | BROKEN | 20130717007 | PAC |
| DHC 2 MKI | 2731 | T-LINK | C2TF7 | UNSERVICEABLE | 20130815002 | ONT |
| DHC 2 MKI | 3246 | FITTING | 58S926R | CORRODED CRACKED | 20130815015 | PAC |
| DHC 2 MKI | 5610 | WINDSHIELD BRACKET | C2FC129 | CRACKED | 20130821002 | PNR |
| DHC 3 | 2711 | PUSHROD | C3CF3113 | CRACKED | 20130703002 | ONT |
| DHC 3T | 2820 | MOTOR | A4949 | FAILED | 20130808003 | ONT |
| DHC 6 300 | 2720 | RUDDER PEDAL | C6CFM121027 | CRACKED | 20130726011 | MAR |
| DHC 6 300 | 2730 | HINGE ARM | C6TEM101633 | CRACKED OFF | 20130710008 | MAR |
| DHC 7 103 | 2110 | AIR CYCLE MACHINE | 7506601 | FAILED | 20130918008 | ONT |
| DHC 8 102 | 1000 | PULLEY | 85410466001 | SEIZED | 20130923010 | MAR |
| DHC 8 102 | 1000 | PULLEY | MS202203 | SEIZED | 20130911008 | MAR |
| DHC 8 102 | 1400 | BRACKET | 85410370001 | CRACKED | 20130923013 | MAR |
| DHC 8 102 | 2432 | AUXILIARY BATTERY | 20413000 | OVERHEAT | 20130920003 | MAR |
| DHC 8 102 | 2752 | BEARING | 5903592 | SEAL DETACHED | 20130716001 | MAR |
| DHC 8 102 | 2761 | CASING | | FRACTURED | 20130903004 | MAR |
| DHC 8 102 | 2761 | ROLL SPOILER ACTUATOR | A44700009 | FRACTURED | 20130927002 | MAR |
| DHC 8 102 | 2840 | FUEL QUANTITY INDICATOR | 10013000002 | SHORTED | 20130812001 | MAR |
| DHC 8 102 | 2900 | VALVE HYDRAULIC BRAKE | G831810A | FRACTURED | 20130903008 | MAR |
| DHC 8 102 | 2910 | HYDRAULIC TUBE | 82970410115 | CHAFFED LEAKING | 20130731004 | MAR |
| DHC 8 102 | 3230 | PULLEY | 85410466001 | SEIZED | 20130703007 | MAR |
| DHC 8 102 | 3230 | SOLENOID SEQUENCE VALVE | 54C546347 | FAILED | 20130826009 | MAR |
| DHC 8 102 | 3240 | BRAKE CABLE | 83200501001 | FRAYED/BROKEN | 20130906002 | MAR |
| DHC 8 102 | 5415 | FITTING | 85711438101 | CORRODED | 20130927007 | MAR |
| DHC 8 102 | 5415 | FITTING | 85711438101 | CORROSION | 20130923004 | MAR |
| DHC 8 102 | 7120 | STRUT ASSEMBLY | 85410029053 | CORROSION | 20130923002 | MAR |
| DHC 8 202 | 2760 | SPOILER POWER UNIT POWER CONTROLLER | DH10201153CS | UNSERVICEABLE | 20130828003 | ONT |
| DHC 8 202 | 3451 | DISTANCE MEASURING EQUIPMENT ANTENNA | 1020332N2 | CRACKED | 20130828004 | ONT |
| DHC 8 300 | 8012 | START CONTACTOR | AJA4N176 | WELDED CLOSED | 20130717008 | ONT |
| DHC 8 311 | 2711 | WIRE | 27113C22 | CHAFFED | 20130801008 | MAR |
| DHC 8 311 | 3220 | PIPE - HYDRAULIC SYSTEM #2 | | DAMAGED - LEAK | 20130709010 | ONT |
| DHC 8 311 | 3232 | ARM | 85420015103 | FRACTURED | 20130702002 | MAR |
| DHC 8 311 | 3320 | LAMP HOLDER | BV033000220 | END BURNT | 20130815008 | MAR |
| DHC 8 314 | 7120 | STRUT ASSEMBLY VERTICAL | 87110047001 | WORN OUT | 20130911004 | QUE |
| DHC 8 315 | 3240 | ROTOR | 24459023 | BROKEN | 20130705002 | PNR |
| DHC 8 400 | 1410 | HOSE | 115503005 | RUPTURED | 20130715012 | ONT |
| DHC 8 400 | 2400 | AUDIO RADIO CONTROL DISPLAY UNIT | CDU3933AF05 | INTERNAL SHORT | 20130918004 | ONT |
| DHC 8 400 | 2620 | CONTROL AMPLIFIER | 47387203 | BURNT | 20130822011 | ONT |
| DHC 8 400 | 2913 | ENGINE DRIVEN PUMP | 6617304 | SHAFT SHEARED | 20130909003 | ONT |
| DHC 8 400 | 3213 | AXLE | 461083 | CORROSION NOTED | 20130830010 | QUE |
| DHC 8 400 | 3240 | BRAKE UNIT | 216052 | BINDING | 20130829009 | ONT |
| DHC 8 400 | 3244 | TIRE | DR0231T | TREAD SEPARATED | 20130708006 | ONT |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| DHC 8 400 | 3297 | NOSE LANDING GEAR HARNESS | 473903 | OPEN WIRING | 20130830002 | ONT |
| DHC 8 400 | 5610 | WINDSHIELD | 80260007 | SHATTERED | 20130920007 | ONT |
| DHC 8 402 | 2530 | COFFEE MAKER | 400263601 | SHORTED | 20130906006 | MAR |
| DHC 8 402 | 2530 | OVEN MODEL 1432-I-AC | 400123002 | NEW | 20130910002 | QUE |
| DHC 8 402 | 2910 | ENGINE DRIVEN HYDRAULIC PUMP | 6617303 | LEAKING | 20130726010 | ONT |
| DHC 8 402 | 3230 | ALTERNATE ACTUATOR | 466501 | BROKEN | 20130711005 | QUE |
| DHC 8 402 | 3230 | MECH SEQUENCE VALVE | 1FA01139103 | UNSERVICEABLE | 20130801006 | ONT |
| DHC 8 402 | 3416 | RADAR ALTIMETER #1 HARNESS | 83440221405 | LOCKARM REVERSED | 20130815006 | ONT |
| DHC 8 402 | 3444 | RADAR ALTIMETER #1 HARNESS | 83440221405 | LOCKARM REVERSED | 20130815007 | ONT |
| DHC 8 402 | 5210 | TUBE | 85217053103 | FRACTURED | 20130920008 | MAR |
| DHC 8 402 | 5210 | VALVE SHUTOFF | 4100S105 | FAILED | 20130909005 | MAR |
| DHC 8 402 | 5230 | CARGO DOOR HANDLE | 85237600001 | SERVICABLE | 20130816005 | ONT |
| DHC 8 402 | 5697 | WINDOW SYSTEM WIRING | | BURNT | 20130905009 | MAR |
| DHC 8 402 | 5713 | WING STRINGERS | 857143121615 | ELONGATED HOLES | 20130826010 | ONT |
| *DIAMOND - CAN* | | | | | | |
| DA 20 A1 | 7520 | RADIATOR LEFT HOSE | 63019 | SPLIT | 20130814001 | ONT |
| DA 20 C1 | 2750 | SPACER | 2227500002 | MISSING | 20130708003 | MAR |
| DA 20 C1 | 7314 | ELECTRIC FUEL PUMP | 5367001 | LOW PRESSURE | 20130919005 | MAR |
| DA 20 C1 | 7322 | THROTTLE BODY | 6538981A19 | SEIZED | 20130826004 | MAR |
| DA 20 C1 | 7930 | OIL PRESSURE GAUGE | 2279301000 | INACCURATE | 20130808005 | MAR |
| DA 20 C1 | 7930 | OIL PRESSURE GAUGE | 2279301000 | INACCURATE | 20130826015 | MAR |
| DA 20 C1 | 7930 | OIL PRESSURE GAUGE | 227930100 | INACCURATE | 20130716002 | MAR |
| DA 20 C1 | 7930 | OIL PRESSURE GAUGE | 2279301000 | INACCURATE | 20130716007 | MAR |
| DA 20 C1 | 7930 | OIL PRESSURE GAUGE | 2279301000 | INACCURATE | 20130826014 | MAR |
| DA 20 C1 | 8011 | STARTER | BC3201 | SHAFT BROKEN | 20130722012 | PNR |
| *DOUGLAS* | | | | | | |
| DC10 30F | 2110 | AIR CYCLE MACHINE | 20497511 | FAILED | 20130702005 | PAC |
| DC10 30F | 5610 | WINDSHIELD | NBA6045501 | CRACKED | 20130704005 | PAC |
| DC3G202A | 2913 | HYDRAULIC PUMP | 1P582K | FAILED | 20130703005 | ONT |
| *EMBRAER* | | | | | | |
| EMB 500 | 3244 | TIRE | 215K261 | BULGED | 20130716003 | PNR |
| EMB 500 | 3418 | VANE BASE ASSEMBLY | C1001641 | HEATER FAIL | 20130705005 | PNR |
| ERJ 170 200 LR | 3230 | LANDING GEAR CONTROL LEVER | 9037B000104 | FAILED | 20130918001 | PNR |
| ERJ 170 200 SU | 3140 | MODULAR AVIONICS UNIT POWER MODULE | 70265421901 | FAILED | 20130805018 | QUE |
| ERJ 190 100 IGW | 2150 | AIR CYCLE MACHINE | 10007004 | FAILED | 20130729022 | QUE |
| ERJ 190 100 IGW | 2300 | COMMUNICATION SYSTEM | | COMPLETE FAILURE | 20130823007 | QUE |
| ERJ 190 100 IGW | 2730 | ELEVATOR ACTUATOR | 4161001001 | FAILED | 20130911011 | QUE |
| ERJ 190 100 IGW | 2750 | FLAP SYSTEM | | FAILED | 20130905011 | QUE |
| ERJ 190 100 IGW | 2750 | FLAP SYSTEM | | FAILED | 20130919004 | QUE |
| ERJ 190 100 IGW | 2752 | FLAP ACTUATOR | C1558161 | FAILED | 20130820001 | QUE |
| ERJ 190 100 IGW | 2760 | SPOILER SYSTEM | | FAILED | 20130819017 | QUE |
| ERJ 190 100 IGW | 2910 | ENGINE DRIVEN PUMP PYLON | | RUPTURED | 20130823008 | QUE |
| ERJ 190 100 IGW | 3140 | INPUT/OUTPUT MODULE | 70253651901 | FAILED | 20130702004 | QUE |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| ERJ 190 100 IGW | 3240 | MAIN BRAKE PRESSURE | 526335001 | FAILED | 20130927009 | QUE |
| ERJ 190 100 IGW | 3241 | BRAKE SYSTEM | | FAILED | 20130805016 | QUE |
| ERJ 190 100 IGW | 3411 | AIR DATA INDICATION | | UNRELIABLE | 20130829001 | QUE |
| ERJ 190 100 IGW | 3610 | ENGINE BLEED SYSTEM | | LOSS | 20130916004 | QUE |
| ERJ 190 100 IGW | 5430 | PYLON FAIRING PANEL | 3411501503 | MISSING | 20130905010 | PNR |
| *EUROCOPTER FRANCE* | | | | | | |
| EC 120 B | 2360 | ELECTRICAL BONDING BRAID | 365A31193700 | UNSERVICEABLE | 20130823009 | MAR |
| *FAIRCHILD* | | | | | | |
| SA227AC | 2910 | HYDRAULIC TUBE | 2781032081 | UNSERVICEABLE | 20130703006 | PNR |
| SA227AC | 2910 | TUBE ASSEMBLY | 2781032273 | CRACKED | 20130729023 | ONT |
| SA227CC | 2910 | HYDRAULIC LINE | 2781032013 | CRACKED | 20130812006 | ONT |
| SA227DC | 7930 | GAUGE | 271916005 | FAILED | 20130816006 | ONT |
| *GULFSTREAM - ISRAEL* | | | | | | |
| ASTRA SPX | 3620 | SENSING ELEMENT | 35636210 | USED | 20130920018 | ONT |
| ASTRA SPX | 4980 | SHROUD ASSEMBLY | AST1271 | BAD INSTALL | 20130823010 | ONT |
| *GULFSTREAM - USA* | | | | | | |
| GV | 3150 | LED BULB | ELED682CGSRD | SHORTED | 20130905004 | QUE |
| *HUGHES* | | | | | | |
| 369D | 6520 | TAIL ROTOR GEARBOX | 369D25400 | CHIP LIGHT | 20130925004 | PAC |
| *LEARJET* | | | | | | |
| 35A | 3241 | WIRE | | CORRODED | 20130917001 | QUE |
| 45 | 2130 | MUFFLER ASSEMBLY | 12945096001 | CRACKED | 20130927005 | QUE |
| 60 | 2822 | AUXILIARY POWER UNIT FUEL BOOST PUMP | 15000022 | LEAKING | 20130712008 | PNR |
| 60 | 5620 | CABIN WINDOW | 660040510 | CRACK | 20130912003 | QUE |
| 60 | 7830 | BIRDCAGE | 2660016503 | CRACK | 20130912008 | QUE |
| *MORAVAN* | | | | | | |
| Z242L | 3213 | GEAR | | WORN | 20130823004 | ONT |
| *PILATUS - SW* | | | | | | |
| PC 12 45 | 5710 | HY-LOK FASTNER | HLT411AP610 | MISSING COLLAR | 20130705003 | ONT |
| PC 12 47E | 2460 | OVERHEAD CONTROL PANEL | 9728121155 | INOPERABLE | 20130709002 | ONT |
| PC 12 47E | 2710 | AILERON CONTROL ROD | 5271212060 | WET | 20130827004 | PAC |
| *PIPER* | | | | | | |
| PA28 140 | 7800 | CLAMP | 65442003 | UNSERVICEABLE | 20130819018 | PAC |
| PA31 | 3232 | BRACKET | 46357001 | CRACKED | 20130712005 | QUE |
| PA31 | 3232 | PIPER BRACKET | 4635700 | CRACKED | 20130712004 | QUE |
| PA31 | 7800 | TOP TAIL PIPE | 4031008 | PERFORATED | 20130912002 | QUE |
| PA31 350 | 8120 | 409170-9001 | LFR009941 | FAILED | 20130709013 | PNR |
| PA31 350 | 8530 | BASE STUDS | | SHEARED | 20130818001 | PAC |
| PA31P | 3110 | PANEL SHOCK MOUNT | 475109J721922 | BROKEN/WORN | 20130801007 | PNR |
| PA34 200 | 3260 | SQUAT SWITCH | 1SE13 | REPLACED | 20130920012 | ONT |
| PA34 200T | 3211 | FORWARD TRUNNION | 67040013 | USED | 20130923015 | PNR |
| PA44 180 | 7800 | MUFFLER ASSEMBLY | PIM0010 | MISSING BAFFLES | 20130724004 | MAR |
| PA60 600 | 2421 | ALTERNATOR | ALLL8521R | LOW OUTPUT | 20130823011 | PAC |
| *QUEST* | | | | | | |
| KODIAK 100 | 2730 | CABLE ASSEMBLY | 1006184412D01 | CORROSION | 20130923005 | PAC |
| *ROBINSON* | | | | | | |
| R44 | 2916 | RESERVOIR | D2111 | VALVE STICKING | 20130820003 | PNR |
| R44 | 6720 | TAIL ROTOR PITCH CHANGE | C0311 | WORN | 20130910004 | PNR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| R44 | 7160 | AIR FILTER | C7711 | DETERIORATED | 20130822013 | QUE |
| R44 II | 2397 | MASTER RADIO RELAY | A9994 | FAILED | 20130729020 | PNR |
| R44 II | 2432 | BATTERY | RG2415 | LOW VOLTAGE | 20130708002 | PNR |
| R44 II | 2432 | BATTERY | RG2415 | UNSERVICEABLE | 20130801001 | PNR |
| R44 II | 2435 | STARTER | 14924HT | FAILED | 20130708001 | PNR |
| R44 II | 2435 | STARTER | 14924HTH | LOW CRANKING | 20130724002 | PNR |
| R44 II | 2435 | STARTER | 14924HT | WON'T START | 20130702011 | PNR |
| R44 II | 2841 | FUEL QUANTITY | 624600716 | REPLACED | 20130802005 | PNR |
| R44 II | 2841 | FUEL QUANTITY METER | 624600716 | NOT ADJUSTABLE | 20130802004 | PNR |
| R44 II | 2913 | HYDRAULIC PUMP | D5001 | LEAKING | 20130807010 | PNR |
| R44 II | 2916 | RESERVOIR | D2112 | VENTING | 20130912001 | PNR |
| R44 II | 6240 | TACHOMETER | C7924 | STICKING | 20130719004 | PNR |
| R44 II | 6310 | SPRAG CLUTCH | C1883 | UNSERVICEABLE | 20130812004 | PNR |
| R44 II | 6730 | RESERVOIR | D2112 | LEAKING | 20130715018 | PNR |
| R44 II | 7314 | FUEL PUMP | LW15473 | LEAKING | 20130813001 | PNR |
| R44 II | 7322 | GOVERNOR | D2782 | WORN | 20130718002 | PNR |
| R44 II | 7414 | MAGNETO | 106006169 | WORN | 20130925007 | PNR |
| R44 II | 7414 | MAGNETO | 1060064620 | WORN | 20130813002 | PNR |
| R44 II | 7414 | MAGNETO | 1060064620 | WORN | 20130815009 | PNR |
| R44 II | 7414 | MAGNETO | 1060064620 | WORN | 20130925006 | PNR |
| R44 II | 8011 | STARTER | BC3151004 | WONT START | 20130801002 | PNR |
| R44 II | 8550 | ENGINE | IO540AE1A5 | MAKING METAL | 20130730002 | PNR |
| *ROCKWELL COLLINS* | | | | | | |
| 690A | 3211 | LEFT HAND MAIN LANDING GEAR TRUSS ANGLE | 73005821 | CRACKED | 20130904010 | PNR |
| *SAAB* | | | | | | |
| SF340A | 3240 | PARKING BRAKE CABLE | AMP250998 | FAILED | 20130816007 | PAC |
| *SWEARINGEN* | | | | | | |
| SA226TC | 3243 | MASTER CYLINDER | V1151000 | UNSERVICEABLE | 20130925005 | PNR |
| *VIKING CANADA* | | | | | | |
| DHC 6 400 | 2460 | JUNCTION MODULE | M8171417D37 | FLAWED | 20130816008 | PAC |
| DHC 6 400 | 2810 | FLAPPER VALVE | C6PF11573 | OBSCURED | 20130724010 | PAC |
| DHC 6 400 | 2997 | PRESSURE SWITCH | PDM6607P96A | BURNT | 20130923017 | PAC |
| DHC 6 400 | 5420 | AN960PD6L | | FOULING | 20130918015 | PAC |
| DHC 6 400 | 6113 | SPINNER BULKHEAD | C30641P | GOUGED | 20130819019 | PAC |
| DHC 6 400 | 7921 | OIL COOLER | C6SC11413 | FRETTING | 20130717010 | PAC |
| **ENGINE** | | | | | | |
| *ALLISON* | | | | | | |
| 250-C20B | 7200 | 2 1/2 BEARING | | MAKING METAL | 20130828012 | PAC |
| 250-C47B | 7210 | PINION GEAR | 6893672 | BROKEN GEARTOOTH | 20130923006 | PNR |
| 501-D13D | 6121 | SYNC MODULE | 6508977 | NOT WORKING | 20130822009 | PAC |
| 501-D13D | 7160 | HEATED AIR INLET DUCT | 906425201 | HEAT DAMAGE | 20130709015 | PAC |
| *AVCO LYCOMING* | | | | | | |
| IO-540-AE1A5 | 7414 | BLOCK | 10357426 | BUSHING FAILURE | 20130829011 | PNR |
| IO-540-AE1A5 | 7414 | BLOCK | 10357426 | CRACKED | 20130713001 | PNR |
| IO-540-AE1A5 | 7414 | BLOCK | 10357426 | CRACKED | 20130724005 | PNR |
| IO-540-AE1A5 | 7414 | BLOCK | 10357426 | CRACKED | 20130829010 | PNR |
| O-360-A3A | 7800 | EXHAUST STACK | 99541006AWL | CRACKED | 20130717004 | PNR |
| T5313B | 7230 | DIFFUSER HOUSING | 111030011 | IN SERVICE | 20130920009 | PNR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| *CFM INTERNATIONAL* | | | | | | |
| CFM56-5A1 | 7200 | ELECTRONIC CONTROL UNIT ALTERNATOR | | CONTAMINATED | 20130927004 | QUE |
| *GENERAL ELECTRIC* | | | | | | |
| CF34-10E5A1 | 7200 | ENGINE | | TAILPIPE FIRE | 20130827002 | QUE |
| CF6-80A | 7532 | VALVE ASSEMBLY - CHECK VALVE | 77385619 | ON CONDITION | 20130920013 | ONT |
| *HONEYWELL* | | | | | | |
| TFE731-20BR-1B | 7220 | FAN ASSEMBLY | | WORN OUT | 20130919002 | ONT |
| *PRATT & WHITNEY-CAN* | | | | | | |
| PT6A-28 | 7532 | DIAPHRAGME | 310334701 | TEAR | 20130704003 | QUE |
| PT6A-41 | 7240 | ENGINE GAS GENERATOR CASE | | CRACKED | 20130814004 | PNR |
| PT6A-42 | 7200 | ENGINE | PT6A42 | CONTAMINATION | 20130709012 | PNR |
| PT6A-42A | 7250 | COMPRESSOR TURBINE BLADES | 312313102 | DAMAGED | 20130717003 | PNR |
| PT6A-60A | 7532 | BLEED VALVE | 311703201 | UNSERVICEABLE | 20130924004 | MAR |
| PT6A-67B | 8300 | HELICAL COIL INSERT/ BOLT | MS124775 | BROKEN/STRIPPED | 20130724007 | QUE |
| PT6A-67F | 8300 | ENGINE | PT6A67F | WARNING LIGHT | 20130822010 | PAC |
| PT6T-3D | 7200 | #4 MAIN BEARING | 3028006 | TABS BROKEN | 20130920017 | PAC |
| PW119B | 7250 | PT2 STATOR | 3073624 | USED | 20130808004 | PAC |
| PW121 | 7280 | GARLOC SEAL | 311435001 | CRACKED | 20130731008 | QUE |
| PW123 | 7210 | REDUCTION GEAR BOX 2ND STAGE SPUR GEARSHAFT | 310831601 | CRACKED | 20130826001 | PNR |
| PW123 | 8300 | ENGINE | | CASE CRACK | 20130916008 | MAR |
| PW535E | 2000 | NUT-TUBE COUPLING | MS919806 | MISSING THE HOLE | 20130916001 | QUE |
| *PRATT & WHITNEY-USA* | | | | | | |
| JT8D-17 | 7711 | TUBE ASSEMBLY PT7 | 500790 | CRACKED | 20130905014 | PNR |
| JT8D-17A | 7500 | BLEED AIR DUCT | 657745213 | ON CONDITION | 20130905007 | PNR |
| R-985-AN-14B | 8530 | CYLINDER | 399343 | UNSERVICEABLE | 20130820008 | PAC |
| *TELEDYNE CONTINENTAL* | | | | | | |
| IO-470-L | 7310 | FUEL INJECTOR TUBE | 928152 | CRACKED | 20130807012 | PNR |
| O-200-A | 8530 | EXHAUST VALVE | | UNSERVICEABLE | 20130819016 | PAC |
| TSIO-520-B | 8530 | CYLINDER | AEC631397 | UNSERVICEABLE | 20130725001 | PNR |
| *TURBOMECA* | | | | | | |
| ARRIEL 1D1 | 1410 | ENGINE OIL HOSE | 355A75130074 | CRACKED | 20130715014 | PAC |
| ARRIUS 1A | 7800 | EXHAUST NOZZLE | 319778720 | UNSERVICEABLE | 20130905006 | PAC |
| *WILLIAMS* | | | | | | |
| FJ44-3A | 7720 | TT2PT2 SENSOR | 79646 | HEATER FAILED | 20130709011 | PNR |
| **PROPELLER** | | | | | | |
| *AEROPRODUCTS* | | | | | | |
| A6441FN-606 | 6120 | REGULATOR | R654 | SERVICEABLE | 20130729021 | PNR |
| *DOWTY ROTOL* | | | | | | |
| R408/6-123-F/17 | 6114 | BALL SET | 6660003873 | GALLING/SCORED | 20130814005 | PNR |
| *HAMILTON STANDARD* | | | | | | |
| 14SF-19 | 6111 | BLADE COLLAR | 8022531AND2 | CRACKED | 20130802003 | QUE |
| *HARTZELL* | | | | | | |
| HC-D4N-3A | 6114 | SEAL | C33174262 | DAMAGED | 20130806005 | PNR |

| Make/Model | Jasc | Part Name | Part Number | Part Condition | SDR No. | RGN |
|---|---|---|---|---|---|---|
| *MCCAULEY* | | | | | | |
| 1A101/DCM6948 | 6110 | PROPELLER | 1A101DCM6948 | UNSERVICEABLE | 20130919006 | QUE |
| *SENSENICH* | | | | | | |
| W69EK-63G | 6111 | PROPELLER | W69EK763 | ERODED | 20130712006 | ONT |
| **EQUIPMENT** | | | | | | |
| *ACS* | | | | | | |
| SSTCCLSA12 | 3430 | INSTRUMENT LANDING SYSTEM | | ERRATIC | 20130711011 | PNR |
| *ARTEX* | | | | | | |
| ME406 | 2562 | G-SWITCH | 4526505 | FAILED | 20130718003 | PAC |
| *BEECRAFT* | | | | | | |
| 10180153 | 3244 | TIRE | 265F868 | OUT OF BALANCE | 20130904017 | PNR |
| *CESSNA* | | | | | | |
| 11341041 | 2100 | MOTOR ASSEMBLY | 11341041 | BURNT OUT | 20130821005 | PAC |
| *CONVAIR - CAN* | | | | | | |
| 750X14 | 3244 | NOSEWHEEL TIRE | 750X14 | OUT OF BALANCE | 20130828014 | PNR |
| *GENERAL ELECTRIC* | | | | | | |
| 9.231E+11 | 2610 | FLAME DETECTOR WIRING | | INTERMITTED | 20130905013 | MAR |
| *GOODRICH* | | | | | | |
| 23085001 | 2435 | BEARING | 3600918 | FAILED | 20130809004 | PNR |
| 23085001 | 2435 | BEARING | 3600918 | FAILED | 20130924006 | PNR |
| *GOODYEAR* | | | | | | |
| 265F868 | 3244 | BALANCE PATCH | 15OZ | SEPARATED | 20130925008 | PNR |
| *GULL AIRBORNE* | | | | | | |
| 150906002 | 7331 | FUEL FLOW TRANSMITTER | 150906002 | NO INDICATION | 20130905012 | PNR |
| *HONEYWELL* | | | | | | |
| 4006719921 | 2215 | SERVO MOTOR | 4006719921 | REPAIRED | 20130711009 | PNR |
| 83440221405 | 3444 | RADAR ALTIMETER #1 HARNESS | 83440221405 | LOCKARM REVERSE | 20130815005 | ONT |
| *LIVE TV* | | | | | | |
| 3042865102 | 2520 | SEAT ELECTRONIC BOX | 3042865102 | OVERHEATED | 20130726014 | PNR |
| *MARVEL SCHEBLER* | | | | | | |
| 105217 | 7322 | FLOAT BRACKET | 15638 | FACTORY NEW | 20130828005 | PNR |
| **UNAPPROVED PART** | | | | | | |
| *PRATT & WHITNEY-CAN* | | | | | | |
| PW535E | 2000 | NUT-TUBE COUPLING | MS919806 | MISSING THE HOLE | 20130916001 | QUE |

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